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Stone: Making and Maker

SMRITI SARASWAT

Throughout history, stone has been used in India as a medium of communication and a way of seeing, especially in temples, which reflects narratives of religion, mythology, society, and culture. The Radhasoami Samadh, located in Agra, is a spiritual building that showcases exquisite stone crafts (carving and inlay) and exemplifies the negotiation between what is seen and what is experienced. Narratives of its makers and making, spread across a timeline of more than a hundred years, reflect the profound relationship between the craftspersons and their environment.

Storytelling, India, and Radhasoami Samadh

All the illustrations and photos were taken by the author in 2008–2009, and revisited during 2020–2021.

To better understand how stone craft in India is a medium for telling a building's story, as well as how a building is made through the process of stone craft, it is first vital to undertake an overview of Indian stone, its kinds, the processes involved in its making, its associated crafts, deep roots in culture, craftspersons, and other meanings. The story of stone is the story of civilization. Stone is one of the materials that has witnessed all the eras and narrates a timeline:

> The first monuments were simple masses of rock, 'which the iron had not touched,' as Moses says. Architecture began like all writing. It was first an alphabet. Men planted a stone upright, it was a letter, and each letter was a hieroglyph, and upon each hieroglyph rested a group of ideas, like the capital on the column. This is what the earliest races did everywhere, at the same moment, on the surface of the entire world.[1]

Stone was once abundantly available, and it could be found all across the world in various products of daily use, objects of arts and crafts, and architecture, all of which tell a story of their respective epochs. It has the potential to narrate such a vast history because it is long-lasting and could easily stand the test of times.

Stone has most significantly been used as a building material. In India, one specific reason for its acceptance, apart from its sheer availability, has been its material properties and its suitability for carving. A large number of built forms can be traced in the areas which had easy access to this raw material. In fact, it was the wisdom of the *shilpi* tradition, which allowed craftspersons to understand the composition of stones, their material properties, and develop an expertise in quarrying techniques and best exploit their potential. Moreover, this vast repertory of information and knowledge consists not only of experiences passed on through generations, but of a completely scientific approach. A lot of hands and brains are involved in bringing stone form the quarry to the finished form. It is a time-consuming process involving quarrying, cutting, and dressing stones, as well as carrying loads.

Much of our built environment, architecture, and cities are planned on the basis of a narrative intent. As claimed by Mark Gottdiener, Karin Boklund-Lagopoulou, and Alexandros Ph. Lagopoulos: "A phenomenological

1. Hugo 2011: 175.

consideration of our relationship with architectural objects tells us that we commonly do experience architecture as communication, even while recognising its functionality."[2]

This intent or discourse is hardly acknowledged or researched due to disciplinary boundaries, but the Radhasoami Samadh offers an opportunity to undertake such transdisciplinary research. This case study helps us to unearth the humane and the devout aspect of the craftspersons who have been painstakingly engaged in upholding this story through their crafted narration on the marble of the Samadh complex. The Radhasoami Faith observants do not believe in idol worship. They find godliness in nature. This is why, in the Samadh, one can observe floral motifs all over that emphasize nature. The predominance of floral motifs is in fact itself a discourse. The narrative character of carving and inlaid stone (seen on building elements and motifs) has evoked the importance of nature and a sense of spirituality in the building, thus imparting it a sense of universality.

Making: Structure and Building Elements

Radhasoami Samadh has a long and storied legacy. It has been one hundred and fifteen years now since the construction of the Samadh began, and it is estimated that it shall continue for another twenty-five years. The main structure is 110 x 110 feet, and its height, including the dome and the kalash, will be 193 feet. A 55 feet broad platform runs all around the main structure, and the height of the plinth is 20 feet above the ground level. The octagonal pillars are marble monoliths, each supported on a carved base of marble and covered with an even more elaborately carved cap of marble. On the northern and southern sides, there are—in front of the octagonal pillars—cylindrical monoliths. The rest is masonry brick and stone work in lime covered with marble slabs. Although the initial construction started in 1904, several important changes occurred in 1928, when the structure was reconfigured based on a model built with the help of a British architect named Frizoni. There are no major changes in the design, and the model of the structure shows all the after-completion details. It was made in Salem, a district of Tamil Nadu (scale is 1 inch equal to 2.5 feet).

The building elements in stone and the associated craft details are distributed amongst the masons


Fig. 01.1


Fig. 01.2


Fig. 01.3


Fig. 01.4


Fig. 01.5


Fig. 01.6

2. Gottdiener / Boklund-Lagopoulou / Alexandros Ph., eds. 2003: 242.

and craftspersons, systematically and in relation to their skills and experiences.

Makers: Stone Carving and Inlay

In India, stone carving is known as *Santarashi*, and the craftperson who undertakes it is called the *Santarash*. During the production of this building, the craft of stone carving was chosen, keeping in mind the idea of depicting objects in three dimensions, which according to the craftspersons, represented and conveyed the forms and details much better. Marble was chosen because it supported a wide range of carving, starting right from a seed through to a huge tree. Marble also has the advantage that any depth can be achieved and shown through it.

Throughout Indian history, there have been very many examples of temples, mosques, churches, and other religious buildings in stone, therefore, people in India can probably relate to the idea of universality through stone crafts. Moreover, it can be assumed that people all over the world tend to experience spirituality better through stone. Indeed, the idea of constructing using one's hands, and laboriously detailing the idols, motifs, and buildings, as an act of devotion, has been a cornerstone of most of the religious buildings.[3]

Marble, especially the fine white *Makrana* stone from Rajasthan, is considered very appropriate for carving. It does not crack easily. Moreover, after polishing, marble acquires all the more luster and shine. The sizes available in stone are minimum 2 × 3 × 4 feet, and maximum 8 × 6 × 5 feet. Sizes larger than this need to be customized in the mines. The predominant joinery is the mortis and tenon. For larger stones, the depth of the joint is 2 inches. For the smaller ones, it is 1 inch.

Several indigenous tools are used for carvings [Fig. 01]. The basic tool for carving is the *narzi* (chisel), which is available in different sizes, ranging from 1 *suut* (3 millimeters) to 1 inch.

The exquisite crafts of stone carving and stone inlay can be witnessed on the site. Verses from *Saar Bachhan* (Scriptures) are carved out on the walls. The mere sight of the structure strikes one with awe, inspires reverence, and evokes love for the Lord. The holy ashes are presently kept on the ground floor. They will be moved to the first floor in the main hall once the construction has been completed. Marble is used in different colors—white, pink, green, yellow, and other



Fig. 01.7

Narzi of specific sizes are used for specific purposes such as sharpening the edges, smoothening the surface, and so on.



Fig. 01.8

The *narza* is a larger tool, which is pointed and used for carving. A hammer is used to strike the hand tools while sculpting and carving.



Fig. 01.9

The *panji* is a hand tool with a flat edge, used freehand without a hammer for chiseling when the carving is not too detailed or delicate.

3. See Scalbert 2016: 73–95.

shades. It is brought from different parts of India—Makrana (Jodhpur) and Jaisalmer (Rajasthan), Ambaji and Baroda (Gujarat), Gwalior, and Nowshera (now in Pakistan). Semi-precious stones for the beautiful inlay work come from the beds of rivers such as the Narbada, and quarries in Gujarat and South India. The positioning, type of stone craft, and the level of intricacy, varies with respect to the visitor's eye level. This has been done to keep in mind the technical aspects such as the cone of vision, legibility, showcasing of the hierarchy of information, and significant details [Fig. 02].

The setting of the Samadh is oriental, but different styles have here been beautifully orchestrated to produce a unique, unprecedented symphony.[4]

The motifs in the panels, capitals, arches and entablature, all depict nature [Fig. 03, 04]. These include flowers, shrubs, trees, fruits, and vegetables. The lotus, the plantain, the papaya, the ashoka tree, the grapevine, and a host of other flowers, fruits, and leaves have been reduced into stone true to nature, and are distinctive specimens of the plastic art. The stone carving and the stone inlay work on display in the building is therefore very intricate. In most of the monuments and temples, we find carvings 5 to 6 millimeters deep, or at the most 1 inch deep. In the Radhasoami Samadh, the stone carvings range in thickness from 1 to 5 inches, especially in the Pahari work at the base of the dome, on the fourth floor, where the stone carving is 5 inches thick [Fig. 05]. This Pahari work is to be continued further to a height of 17 feet, and on that will finally sit the majestic dome in white marble with a *kalash*. It is a beautiful sight to see nature in full swing in this exquisite work of crafts. The work is still going on. Up until twenty years ago, there were still no machines used in the construction. The entire work was undertaken by hand. Now, however, a few machines are used to speed up the work. Nevertheless, the majority of the work is still done by hand, and the craftsmanship is simply admirable. Most of the work is done at Agra itself, but some of the work is also done at the other workshops and transported to the site. Radhasoami Trust has three stone workshops—Pindwara in Gujarat, Makrana in Rajasthan, and Agra in Uttar Pradesh. The workshop at Agra is the largest, with all the hand tools, power tools, and machines.

The first and second floor of the building are sixty–seventy years old. The *jali* (trellis) work and arches



Fig. 01.10



Fig. 01.11



Fig. 01.12

4. See Radha Soami Trust 1997: 9.

here are said to have been inspired by Hawa Mahal, Jaipur. The marble on these floors has turned yellowish. Actually, in this old construction, the stone used is from Rajwara. This stone needs maintenance, as after polishing it turns white. Most of the parts of the ground floor and first floor constitute the old construction. Earlier on, lime plaster was used for erection work, but today white cement is used. Inlaid in stone on the walls are *saar-bachans* or *sat-guru vaani* (scriptures). The inlay work in one *saar-bachan* takes about a year for completion, including the polishing work. The indigenous stones used for inlay include *Margaj* (pink, green), *Aqeeq*, and *Neelam*. One *jali* in a railing measuring 4 × 3 feet takes roughly six months to be fully carved, polished, and fitted. Construction of one frame to fit the stone *jali* meanwhile takes about 2–2.5 hours. The capital of a double-column with floral carvings takes about six–seven months to be constructed.

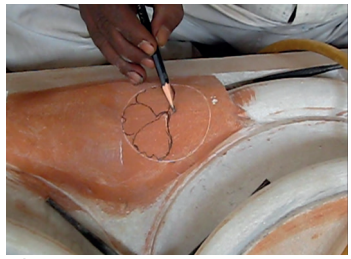
Fig. 01.13


Fig. 01.14

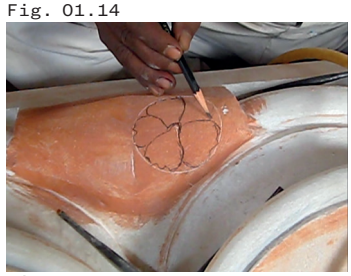
Fig. 01.15

Craftspersons do get proper drawings of the carvings, but at times they do these on their own. They are given complete freedom to pick up motifs from nature and undertake carvings on their own, so they frequently design leaves and floral motifs. Stone inlay (*Parchinkari*) is not possible for large work, because of the limitation of size of stone which supports the inlay. The maximum size of stone in which inlay is possible is 9 × 4 × 6 inches. A larger size is generally not used as it would increase the cost of construction. Radhasoami Samadh was built through narratives, which can be seen in its ways of working, organizing and administrating.

The three main modes of transmitting tradition that have been identified in India[5] (and that can be acknowledged in the Radhasoami Samadh) are:

1) Oral Narratives—Verbal Communication, Own Vocabulary of Craftspersons, Own Units of Measurements (*suut*);
2) Visual Narratives—Drawings, Sketches, Seeing, and Memorizing from Nature;
3) Textual Narratives—Instructions, Texts.

The oral culture is the fundamental basis for the survival of such crafts. Craftspersons are guided by the values verbally passed on to them by their elders. For example, in case of the peasant potters, the entire process is based upon oral sources, starting right from the selection of suitable clay, throwing, processing, beating, enlarging,


Fig. 01.16


Fig. 01.17

5. See Kaushal, ed. 2001: 17–18. Three principal modes of transmitting tradition have also been identified in India. These are oral, textual, and transcendental.

and painting, up until the firing. Similarly, in the case of the stone crafts, the repository of knowledge and experiences are passed on from generation to generation. Stone carving, iconography, and inlay are not just simple processes; they have a proper science involved. This knowledge is constantly transferred from one generation to the other. In this building, this knowledge has been shared and passed on for several decades now.

Especially for religious and spiritual performances, craftspersons are heavily reliant on the memory of older generations. The traditional *Shilpa Shastras* (ancient Indian treatise on art and craft) which served as a base in the education of *shilpis*, carried a deep understanding of philosophy, science, and art, dating back to the Vedic times.[6] The educational tradition of the *Vishwakarma* (The Divine Maker) is unique for several reasons. The transfer of knowledge is hereditary in what is known as the *parampara* (tradition) system. The learning of the *shilpis*, and their training in sculpture and architecture, continues throughout their lives.[7] The organization of production, communication amongst craftspersons as well as with the client, and even marketing, therefore all operate according to oral mechanisms.



Fig. 01.18

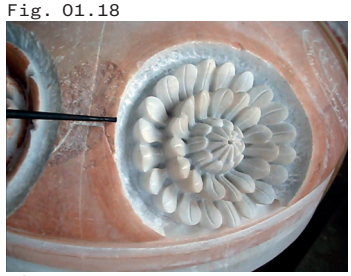

Fig. 01.19

A prakaar (compass) is used for measuring the radius [Fig. 01.10-12] and drawing circular designs [Fig. 01.13-19].

Making: System of Working

One hundred and fifty workers in total are currently involved in the making of the Radhasoami Samadh [Fig. 06]. One hundred and forty-five are Hindus and only five are Muslims. Only three are females. Fifteen–twenty years ago, there were seventy–eighty workers. Many of them were outsiders (from Gujarat and Rajasthan), but they all settled in Agra itself, since the Radhasoami Trust provided them with accommodation. There is a proper hierarchy of work on the site. There is one project manager in charge, with three supervisors below them. Amongst the workers, the highest rank belongs to held by two highly experienced head masons, who have been working for thirty–thirty-five years. Then, the next rank belongs to the stone masons (*santarash*) doing the stone carving. There are forty of them, half of whom are old (forty–sixty years) and half young (thirty–forty years), with the oldest having twenty-five–thirty years of work experience and the youngest fifteen–twenty years. The inlay workers are also all young. There are about fifteen of them altogether with an average working experience of about fifteen years. Then, there are

6. See Chhiber 2002: 70.
7. See Chhiber 2002: 71.

Fig.02. Placement of stone crafts with respect to eye level.

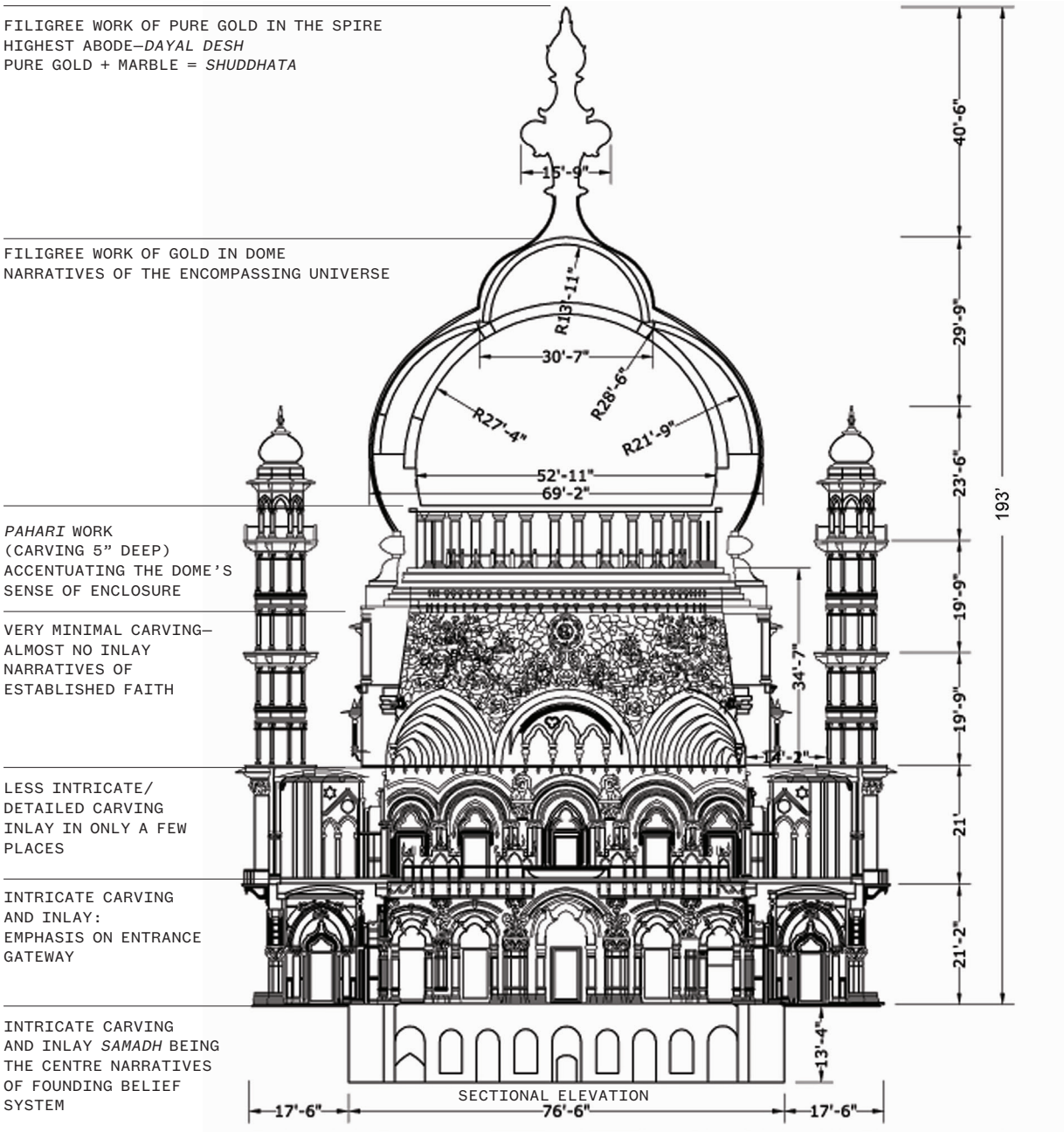


Fig. 03.1


Fig. 03.2


Fig. 03.3

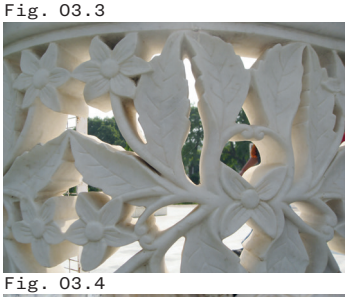
Fig. 03.4


Fig. 03.5


Fig. 03.6

the workers who do stone fittings that are also fifteen in number, and are all old with thirty–thirty-five years of working experience. Machine men, who do the stone cutting, fall next. There are fifteen of them, of whom ten are older. The experienced ones have worked for twenty-five–thirty years, the less experienced ones for fifteen–eighteen years. The next category is the *bandhani* work of shuttering and scaffolding. There are thirty workers right now, all mostly young, thirty–forty years of age at present. The lowest rank are the laborers, who carry bricks and perform cladding work—eighteen in number.

Currently, 2,000–2,500 visitors come to the *Samadh* daily, including the *Satsangis* (devotees). Stone crafts contribute to the fifty percent of the building's production. Plain stone contributes to the remaining fifty percent.

Conclusion

Stone crafts have a tremendously powerful backdrop of a belief system. With each carving and each piece of inlay, beliefs continue to reiterate themselves. In crafts such as block printing, embroidery, and painting, which involve more than one craftsperson laboring on the same piece of work, the end product seeks harmony irrespective of who started or who ended it. This is because the crafts-persons pick up on a certain grammar and work accordingly. Similarly, in Radhasoami Samadh, no matter at which stage, a craftsperson joins the piece of work, picks up a certain grammar, and successfully accomplishes the task. His or her contribution doesn't look out of place. Despite so much disparity amongst the craftspersons, there is not even a single pillar that looks out of place. The basic plan of structure does not alter. They are not taught anything by anyone. The same motif gets transformed when it is carved on different space-making elements and surfaces (horizontal, vertical, arched, and so on). Initially, the site supervisor might guide them, but then the craftspersons take charge themselves and develop an understanding of the same. The real lotus, for example, undergoes change whether it is carved or inlaid.
The three-dimensional motifs when depicted in two-dimensions need a good understanding of the form, which these craftspersons somehow are innately well versed with.

For eons, the *shilpi* tradition has reflected upon how crafts in India concern the profound relationship between craftspersons and their environment, beliefs, and



Fig.04. Stone crafts and motifs depicting nature.



Fig. 03.7



Fig. 03.8

Fig. 03. Stone crafts and motifs depicting nature seen in the building.

ways of living. In postmodern times, this relationship seems to weaken, as now the concept of a *shilpi* or a master craftsperson (maker) has dissolved. It has been replaced by an architect or a designer, who may or may not understand these skills and experiences. Earlier, stone craft and architecture were considered as two sides of the same coin, but with the passage of time, this relationship has changed. Contrary to the previous picture, where stone found extensive use right from village constructions to urban dwellings, palaces to temples, today the focus is shifted from architecture to the traditional sculptures for temples, folk products, and masonry for urban areas. The processes involved in crafts and interior architecture (making) can be interpreted through the medium of narratives in order to close the gap between the *shilpi* tradition and today's designer tradition.

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Fig. 05. Pahari work.

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Fig. 06. Workers involved in the making of the Radhasoami Samadh.

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