



## UNTRAVERSED

### Louis I. Kahn Trophy

### THE CONSTRUCTION OF DWELLINGS

#### PREAMBLE

"The legitimate pursuit of any society aiming at permanence must primarily be the housing of man, sheltering him from the elements and thieves, and above all maintaining around him the peace of the home, sparing no effort, so that his existence may unfold in harmony without dangerously transgressing nature's laws. This aim bears no relationship to the housing tolerated today. It is nothing but a crude compromise, brought about by the powers unleashed by money: profits, rivalry, haste – all the motives which have degraded man's dignity, crushing into submission and made him forget his fundamental right to a decent way of life" – Corbusier, *Le. Talks With Students*. New York: Princeton Architectural Press, 1999.

The above are the opening lines in the chapter titled 'The Construction of Dwellings', originally published in 1943. The prophetic words of Le Corbusier sound as if they were written yesterday. The Louis Kahn Trophy 2018 - 2019 takes the liberty of taking the title of the essay as the trophy theme, also suggesting a coming together of two great masters of modern architecture – Louis Kahn and Le Corbusier.

The theme also suggests the "untraversed" – attempting to deeply explore material alternatives, design detailing and construction typologies as against the broad design of houses or general architecture of the residences, which are possibly more often attempted. The design concept and the material construction are not independent nor is it fair to say that design decides the construction down the line. Design, details, materials and construction all are integral part of architecture, hence create each other, a path not traversed in our studios.

Corbusier writes in the same book, "Any reflective man thrust into the unknown of architectural invention cannot base his creative spark on anything but the lessons taught by past ages". Louis Kahn has said "A great building must begin with the unmeasurable, must go through measurable means, when it is being designed and in the end must be unmeasurable". He also states, "I try to create homes, not houses", where the house is the measurable, but the home is not. The theme looks at the measurable to document and the unmeasurable to analyse.

## OVERVIEW OF THE THEME

Let us try to synthesise the above two critical statements by reflecting on the past, study how humans lived and how they constructed dwellings. The word dwelling is being used here generically, both to mean the house as the visible aspect of living and the home as the invisible aspect of living.

In the past, house designs were determined by the synthesis of all contextual factors like climate, culture, community, social life, local materials, construction technology, religion, history and local precedence. As such, houses reflected the time and space, wherein all these factors could be termed as determinants of design. Given this, the houses reflected how people lived.

Of course today, the determinants of design have been engineers, architects, technology, air conditioning, international styles, media exposure and a million other criteria. Naturally, house designs today do not evolve as per our living, but we live as per the house design. Especially in metropolitan cities, people of varied cultural background, different lifestyles and aspirations live in houses designed without critical inputs from their individual lifestyles. Modes of living have been uniformly influenced by our standardised plans, where 500 diverse families may live in 500 uniform apartments in a large complex.

## ELABORATION OF THE THEME

The plan form of houses in the past were nearly frozen, with little variation across centuries. However, people across the continents explored the materiality and construction typologies rooted in their respective regions. Hence making of the house rather than the design of the house was more important, which led to innumerable varieties of houses during different times and contexts, despite plans being comparable geometrical subdivision of the total ground coverage.

In a typical settlement, both the peasants and chieftain's houses would have had comparable geometries, pillared verandah, small windows, yards with extended roof, flat or sloping roofs and such others. The difference could be that chieftain's house might employ richer materials, complex construction, fine finish, better joinery, larger spaces, good detailing, elaborate embellishment and artistic creativity, lacking in the former's house – both being a product of their contexts.

Nowadays we explore a dwelling through plans, sections, elevations, roof profiles, massing and their dimensional volumes. The bungalow of a rich family could be a totally different typology compared to the house of a poor family. As such, studying the dwellings of the past can be a new learning altogether.

## LEARNINGS FROM THE TROPHY

The theme highlights the word 'construction' rather than 'design', specifically to focus on the materials and making of the structure. Of course, the overall design and plan would have directly impacted in the construction and vice versa, yet more focus is to be directed on how the dwelling got built. This requirement hopes to fill one major gap in our academic studios, which focus more at concept and design, rather than application and implementation, which are beyond the studio.

Francis Bacon had said 'Houses are built to live in, and not to look on; therefore let use be preferred before uniformity'. His de-emphasis on 'looking on' can be an important message for today's architecture, where the visual criteria appear to override all the rest. Also, by placing the building to 'live in', the criteria for design gets rooted around 'living' – the primary cause and justification for all of construction and architecture, which is being neglected today. The theme expects an understanding of living.

Materials and constructions are far deeper and critical than what we can study in academic institutions. Incidentally, heritage structures across time and space offer the best texts possible to learn from and compliment this neglected direction.

## PROJECT SELECTION

Any dwelling, a place of residence – squatter settlements to sophisticated villas; peasants hut to a royal palace; aristocratic mansion to a modest monastery; community clusters to staff quarters – would qualify for the trophy. Guest houses, choultries, student hostels, hotels and such other short stay configuration of individual rooms are not eligible for study, for they lack the depth required to understand the idea of living.

Chosen project could be a single structure or a group of structures, but with a minimum measured and drawn up area of 1000 sq. meters. to avoid a small hut and a large palace being together presented for judging. The open spaces, outdoor areas, paths and unbuilt parts of clusters, which have no roof overhead, are not to be included in this minimum area requirement.

The chosen building (also means buildings etc. in plural) should qualify to be termed as a heritage structure, not so much by the 100 years as its age or monumentality as stated by law, but by it being a structure of notable significance in terms of culture,

community, crafts, cluster, construction, experimentation, representation, association, faith, beliefs, and irreplaceable uniqueness.

While any work of architecture from the past would qualify as above, those with more material explorations, better detailing, notable constructions, richer embellishments, curious experimentations and such others would fare better than rather routine, ordinary, simpler, predictable dwellings, because the latter would have less issues to study, document and present. The theme does not intend to limit the choice, but by default it is understandable that just a few decades old building may not qualify to meet such criteria. Essentially, it should be an expression of a lifestyle and image of a bygone time, where choosing the more appropriate project and justifying its selection is among the trophy challenges for the participants.

## CRITERIA FOR ANALYSIS

While the documentation expects measured drawing, it also expects basic analysis of the chosen historic dwellings and their contexts. If we believe that the design of a house and its construction follows how we live, some understandings of how people lived in the chosen project would be mandatory to understand why that particular dwelling got built in its own unique way. After all, no two houses are the same, so it becomes important to explain how each is unique – mainly from the criteria of material and construction.

Nomadic to settled life, the basic expectations from a home has not changed from the basic four principles - Enclose Space, Enable Activity, Ensure Utilities and Achieve Happiness. If the documentation can go beyond doing measured drawing of the project with materials construction focus and elevate itself to understand these principles in the case of chosen project that would be really commendable.

All the text above are specific notes for the theme 'Construction of Dwellings' for 2018-19, and the following the general notes, submission criteria and such others applicable to LIK trophy each year, as such has some repetition from past years. However, these have been fine tuned to suit this year's theme where possible.

## GENERAL AIMS AND OBJECTIVES

The aim of the 2018 - 2019 LIK Trophy is to document buildings / complexes/ sites which best represent the evolution of 'making of a house' in a particular geographical region.

Students are expected to document historic structures which showcase genuine adaptation of local lifestyle and knowledge while responding to various regional natural and manmade factors. The trophy aims to train students to appreciate and

understand heritage through documentation, and in return, enrich design thinking through documentation.

We hope to understand how structures of the past as built heritage have ingrained the relevant social values and employed traditional knowledge systems, thereby bringing out the historic techniques and design features employed within the structures/ sites responding to the typical site situation/

## The entries for the Trophy should showcase:

- Context of the selected site / project and justify its selection from heritage / thematic perspective.
- Aspects relevant to the making and evolution of such historical building type (aesthetics, region, culture, history, ideas, technology, ecology, climate, time, utility, resources, economics etc.)
- Analysis regarding the use of materials and traditional construction systems.
- The importance of precise documentation as a tool to understand buildings, to record on paper the salient features of such examples which are the result of fusion of tangible and intangible processes.

## CHOICE OF SITE

- Participants shall select ONE / COMPLEX OF BUILDING[S].
- Select the site nearby your location as it is easy to go back to the site, if need be, for purpose of verification etc.
- It is ideal if you select the site from your own region, but not mandatory.
- Study of undocumented / unexplored sites is encouraged through this program.
- Choice of the historic structure or building(s) shall be determined by the following aspects:
- The site should be largely accessible in order to document it. Areas of the buildings which might not be accessible for measurements should be clearly indicated as 'inaccessible' or could be conjectured with a 'cloud' drawn to clearly indicate so. Sites with inaccessible areas should be chosen only in the event of accessible part having extra ordinary significance, which deserves to be documented.
- It is important that the owners/users are in a position to tell you factual information/episodes related to the history of the building, which you must attempt to identify in physical documentation, to map the 'living' in the dwelling.
- Do not choose too many and too large scale buildings/ complex or buildings and dilute the work. Take up dwellings of manageable scale.

- The entry would read better if qualified by 1. Research – archival records to establish extraordinary significance of project. 2. Identification, listing and analysis of values associated with site. 3. Quality, depth and analysis of documentation along with choice of right documentation practice.

## IMPORTANT SUGGESTIONS

- **IT SHOULD BE NOTED THAT THE ENTRY WILL NOT BE JUDGED ON THE QUANTITY OF WORK DONE.**
- **SHEETS WITH OVERDONE RENDERING, DECORATION, ART WORK, BACKGROUND GRAPHICS, UNREADABLE CLUTTERED LINES, LACK OF CLARITY ON DIMENSIONS, REPETITIVE INFORMATION IN DIFFERENT SCALES, SHADING AND SUCH OTHERS MAY MAKE THEM ATTRACTIVE, BUT REDUCE EFFECTIVE COMMUNICATION.**
- **SIMPLE LINE DRAWINGS WITH MAJOR DIMENSIONS, DRAWING SCALE NOTED IN NUMERICALS, LINES AND SPACE WOULD SUFFICE.**
- **CLARITY OF LINE THICKNESSES WHILE DRAFTING COMPLEX SECTIONS AND ELEVATIONS IS IMPORTANT.**
- **SKETCHES AND VIEWS WITH IMMEDIACY OF INFORMATION WOULD BE APPRECIATED, IF THEY CAN COMPLIMENT ELEVATIONS AND SECTIONS.**
- **IN CASE RENDERING IS ATTEMPTED, THEY CAN FOLLOW PRINCIPLES OF SCIOGRAPHY, LIGHT AND SHADOW, ONLY WHERE NEEDED.**

## KEY TASKS

The Submission should adequately explicate and illustrate the context, character, qualities and specificity of the selected historic dwelling(s)

In order to understand and explain adequately the historic building / complex, you shall record, document, research and analyse the following:

- Record and document in detail the building(s) as they are today. Choose the appropriate means and combination of documentation (measured drawing, photography, sketches, text analysis, oral history, etc.) for each aspect below:
- Document the history and evolution of the building(s) along with associated building crafts and traditions.
- Planning and spatial organization of form, structure, and constituent elements of the entire building/ complex. Brief notes on purpose of spaces, role of climate on the built form and such relevant aspects.
- Interplay of architectural, structural, and material elements
- Aspects of its making – materials / construction techniques/ technological advancements.
- Document pointers of the different periods in history - physical elements in the built fabric and its construction system.
- On the basis of above documentation,

- Explain the technological/ scientific/ economic (depending on the place also social/political or other) relevance of the building, focusing on construction details, aspects of its making and design.
- Select one or several material and construction details indicative of the nature, development, use, special ability, etc. of the dwelling. Explain your selection.
- Draw and analyse the construction details. (only computer aided drawings)
- Materials and construction techniques by drawing special details (only computer aided drawings).
- Structural elements and parts through 3d drawings (only computer aided drawings).
- Nature of structural assembly through 3d drawings (only computer aided drawings)
- Transformation / additions / changes in the functional use of spaces and the structure within the building/site and analysis of its impact of site – positive / negative
- Identify the singular salient feature which makes it unique or and displays the construction of the dwelling and makes it work.

## SUBMISSION REQUIREMENT

The Submission shall comprise of a MAXIMUM OF **20 A1 SHEETS AND 2 A1 PHOTOGRAPHIC PANELS** only.

## BUILDING(S) AND CONSTRUCTION DETAILS MEASURED DRAWINGS

Panel size: A1

Panel quality: Opaque (OR Gateway or equivalent but of Matt surface: 90 gsm eg. Canson)

Ink: Only black, no dilution of ink allowed (Computer Aided Drawings only, **No hand drawn drawings**)

Number of panels: At least 2 A1 mandatory panels displaying the original field notes depicting the measuring process.

## ARCHITECTURAL DOCUMENTATION

Panel size: A1

Panel quality: Opaque

Ink: Only black, no dilution of ink allowed (Computer Aided Drawings only, **No hand drawn drawings**)

Number of panels: Minimum 2 A1; appropriate to make the reader understand

Style:

- a) Free hand sketches / hand drawings (should be digitally composed in the sheet )
- b) Axonometric / Isometric drawings (computer aided drawings only )

- c) Use of satellite imagery allowed as a basis for analysis
- d) Photographs allowed (All satellite imagery, photographs, sketches and perspectives shall be in support of the document and not be stand alone and desirably in black and white)
- e) The drawings should be self-explanatory with as little text as possible.

## CONSTRUCTION DETAILS

Panel size: A1

Panel quality: Opaque (OR Gateway or equivalent but of Matt surface: 90 gsm eg. Canson)

Ink: Only black, no dilution of ink allowed (Computer Aided Drawings only, **No hand drawn drawings**)

Number of panels: Minimum 2 A1; appropriate to make the reader understand style:

- a) Computer aided drawings only
- b) Black and white

## GENERAL REMARKS

Each sheet shall bear the NASA logo within the width of the format as per NASA Logo Guidelines and title of site shall be in standardized Arial Narrow Font (72) in Grey ink with sheet numbers written clearly on it, *please note, no decorative titles are allowed.*

NASA Logo should be as per NASA Logo Guidelines. (NASA Logo can be downloaded from NASA, India website.)

Language: All titles, text and explanation must be in English. Other languages may be used for titles (exact translation of the English title) and summary texts (summarizing the English text) in addition to the English.

All illustrations, sketches, maps, drawings, details etc. to have a title and a number Documentation done by hand or digital methods (hand drawings if any should be digitally composed). **No hand drawn drawings or manual presentation strictly / All drawings and final presentation should be in digital mode only**

## FIELD NOTEBOOKS

- Final Documentation drawings shall be accompanied by a set of field notebooks (ideally using A3 graph pad)
- showing the hand drawn drawings /sketches over which measurements were first recorded with dates
- mentioned on them. These are mandatory and are to act as a supplement to the formal documentation. The
- hand drawn sheets, if need be, can be photocopied / scanned and bound together in sequence. Avoid
- retracing and writing dimensions on retraced drawings upgraded for documentation

## PHOTOGRAPHIC PANELS

- A maximum of 4 A2 sized sheets to be used for mounting photographs
- The number, size and colour of the photograph is at the discretion of the respective college.
- Actual photographs to be submitted; no photocopy shall be permitted
- Each A2 sheet shall have the bottom right hand corner empty for positioning of the NASA logo
- (45mmx70mm) stickers for which will be provided.
- The format /sheet title should be in English only, no vernacular language to be used

## REPORT

Report shall highlight the subjective aspects of the documentation of the historic building (s) and its response to evolution of multiple uses and systems over a period of time. It shall be exactly structured along the panel structure, to give more background information about the building, the special techniques used, evidence found, all illustrations, sketches, maps, drawings, details etc. drawn/ used in the panels to be clearly mentioned and referenced in the Report (eg. source of maps, plans, drawings, timelines, dates etc.) along with bibliography and acknowledgements page in the end. Use 12 point, Times New Roman font style for the body text of the Report, which should not exceed 20 pages of A4 size. (Refer Annexure 2 for broad categories of the Report). No decorative titles allowed.

## SOFT COPY

Soft copy of the entire documents, has to be compiled in a single pdf, (all sheets, field notes / sheets to be scanned, , report and the photographic panels ) has to be submitted on our website [www.nasaindia.co](http://www.nasaindia.co)

**ALL COLLEGES ARE REQUESTED TO ADHERE TO THE MENTIONED SPECIFICATIONS,  
FAILING WHICH THE ENTRY CAN BE DISQUALIFIED**

## JURORS AND MODERATORS

The LIK Trophy 2019 would be moderated by Prof. Sathya Prakash Varanashi from Sathya Consultants, Bangalore. The jurors will be drawn from varied experiences in heritage matters, different age groups, varied cultural regions and noted for their intellectual thoughts.

## CHECK LIST FOR SUBMISSION

- Soft copy of submission in PDF to be uploaded on NASA India website- [www.nasaindia.co](http://www.nasaindia.co).
- **Authenticating letter from the organisation/ trust/ guardian of the site being documented stating that the said unit is documenting given site for LIK trophy for NASA India, and they are permitted to do the documentation.**
- Authenticating letter from college HoD/Principal/Director (on College Letterhead with Sign and Stamp of HoD/Principal/Director of the college), for each entry, that the work submitted is genuine and they have endorsed copyrights for the same and with the name of Participant(s) and stating the unit shall abide by whatever may be the final results and also agree that this entry is property of both the institute and NASA India.
- Declaration by the participant(s) stating the work submitted is genuine and they have endorsed copyrights for the same and to adhere by all the rules and regulations, Jury process and the results.
- Authenticating letter from college HoD/Principal/Director(on College Letterhead with Sign and Stamp of HoD/Principal/Director of the college), specifying the Account Details(Account Name, Account Number, Bank Name, ISFC Code) in which the Prize Money is to be awarded.
- Editable format of the sheets has to be submitted during the Annual NASA Convention (Applicable only for shortlisted entries).

## OTHER INFORMATION

- Registrations and submissions should be done by the Unit Secretary.
- Kindly print the form on the college letterhead along with the attestation by the college HoD/Principal/Director and uploaded the scanned copy of the same during registration.

## ANNEX I – GENERAL BACKGROUND TO DOCUMENTATION

Architectural documentation purpose, methodology & techniques to be used

### Purpose

Architectural documentation is the capture of information relevant to understanding the physical configuration, history, evolution and condition of historic sites at known points in time. It is based on the recording of primary evidence (the historic fabric itself as well as documentary, pictorial and other evidence) and the research of secondary sources. This may include tangible (physical) as well as intangible (oral, visual, etc) evidence. Documentation is an important part contributing to the understanding of heritage and its related values.

Architectural documentation is never developed in isolation, it always serves a purpose. With view to the LIK, this purpose may be to;

- Acquire knowledge to advance the understanding of our past, our history, cultural heritage, and its associated values and thus forward the understanding of life, as it is today and helps to explain present phenomena (for instance in the purview of art history, architecture, social, or economic history, structural or engineering history. Here, documentation serves the research, knowledge and awareness and appreciation of bygone times, and the way people lived, worked, and created things in different periods of time. It serves the better understanding of architecture, structural methods, building processes, crafts and stylistic idiom)
- Learn from the past in order to base the development of new design of buildings and settlements on the knowledge of historic achievements and valuable traditions
- Promote the interest and involvement of people in the preservation of heritage through the dissemination of recorded information
- Provide/create a permanent record /reference of unprotected historic buildings and sites
- Provide information for administrators and planners at national, state and local levels to develop heritage-sensitive planning, policies, and decisions
- To create resource material for education and training of architects in enabling them to develop their skills and comprehension of the discipline of architecture
- Rediscover historic buildings and sites and demonstrate the importance of 'looking, seeing and interpreting through digital technologies'.

## Methodology & Techniques

For each level of study as mentioned in the Brief, you will go through several stages of data collection, analysis, evaluation, and synthesis. These steps are described below:

### Data Collection

The process of documentation may include

a) Study of primary sources

-Material fabric (buildings, infrastructure, etc.)

-Maps and plans

-Written documents

-Pictures, paintings, films and other visual documents

-Oral evidence

-Etc.

## b) Study of secondary sources

-Maps and plans, written, pictorial, and other documents such as books, films, etc.

All documentation levels shall be based on primary sources to the greatest extent possible. The use of secondary resources must be indicated. Within the written history, statements shall be footnoted as to their sources.

It is one requirement of this Trophy that the sources and research techniques shall be visibly displayed for the Jury to see that you have not only created a result, but that your process of study is thorough and adequate. This is particularly important for the 'measured drawings', which are at the basis of any analysis of the material fabric present.

The development of measured drawings shall therefore be described below. You may however also consult academic and technical publications to assure that your documentation in all its aspects listed above meets academic and professional standards.

Measured drawings shall be produced from recorded, accurate measurements. They are made by measuring each and every part of a building and by conveying this information in graphic form. Analytical in nature, measured drawings are, in a sense, the reverse of an architect's working drawings. Measured drawings depict a building in its existing state. Portions of the building that were not accessible for measurement (e.g. false ceiling, strong rooms, basement stores etc.) should be clearly labelled as 'inaccessible' or can be conjectured with a 'cloud' drawn to clearly indicate so.

Measured drawings have many advantages over photographs, which are superficial by nature. Views of a building that cannot be portrayed by photographs, such as floor plans or sections, or features that are normally hidden from view, such as construction details, can be accurately documented in measured drawings. In addition, the dimensions of various building features can be determined from measured drawings, making the drawings an invaluable resource for conservation projects. It is also universally recognized that the fundamental role of drawing is to express and communicate as well as to extend knowledge.

## ANNEX II

Broad categories for the Report

**Tracing evolution of functional uses of an historic building/site from historic to contemporary and its impact on historic significance on physical fabric of selected site**

- Brief description of location, the structure / building (s) / complex and its natural setting
- Justification for choice

# LOUIS I KAHN TROPHY | 2018

- History and Evolution
- Physical Form
- Spatial Organization
- Nature of use and purpose
- Construction materials and techniques
- Technological / Scientific advancement
- Identification of significance and value assessment of the selected site
- Analysis of structure selected
- Conclusions

## **PRIZE MONEY:**

Prize money of 2 lakhs Rupees is allotted to the trophy and it will be divided according to the no. of Citations and Special Mentions.

Any Kind of Queries need to be submitted through <https://nasaindia.co/trophy/lik> to

**JPK VINOD**

**NATIONAL PRESIDENT | 2018-19**

**NASA INDIA**

## ACKNOWLEDGEMENT LETTER

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the site \_\_\_\_\_ which belongs \_\_\_\_\_ to/supervised/taken \_\_\_\_\_ care \_\_\_\_\_ of \_\_\_\_\_ by \_\_\_\_\_ has been documented by the students of \_\_\_\_\_ bearing college code \_\_\_\_\_ fom as a part of their work for **Louis I Kahn Trophy** for the Annual NASA Convention 2019.

Details of Person/Authority:

Name of the Person: \_\_\_\_\_

Designation: \_\_\_\_\_

Organisation: \_\_\_\_\_

\_\_\_\_\_

Signature of Authority

Stamp