REVAMPING OF ANJUMAN-I-ISLAM SCHOOL, PANCHGANI ALTERNATIVE SYSTEM

By

BASIT IMTIYAZ KAPADI

A REPORT

Submitted in partial fulfillment of the requirements for the degree of Bachelor of Architecture.

University of Mumbai

2018

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1. ABSTRACT

Schools are places for learning. Places where the next generation is educated and prepared for the future. The current school system was designed in a different context to meet the needs of the previous century. If we want to prepare children to live and act in the future society it is not enough to just improve literacy and numeracy. Changes in our society like globalization and digitalization together with the increasing demand of people who can innovate and collaborate means that we have to rethink education.

A study towards the education system will tell us all the issues faced by children during schooling all over the world. It's like a race which is forced upon a kid since first day of school as a compulsion. As every X and Y specie creates a unique identity, then why when all these different unique identity come under one roof (school) taught to become one identity. The ambiance, spatial experience should be interesting, happy learning, but the reality is students are taught to sit for long day in a classrooms and stare at the black board. In this world of innovation we are just bound to textbook dependent learning. Education is very important stage of one's life, evolution of humans took place, technology is growing faster than we ever imagined, they why not the process, the basics, core of educating people?

To bridge the gap between our educational method and how the society presently works specially in our own country India, If we just take a look of newspapers or taking our own examples we will come across the common fact that it only takes an examination to decide your future, which is so stereotypical .

Treating both introvert and extrovert children on same level or re phrasing it that expecting both of them to be on same level. This creates a pressure on students for competing against each other is like;

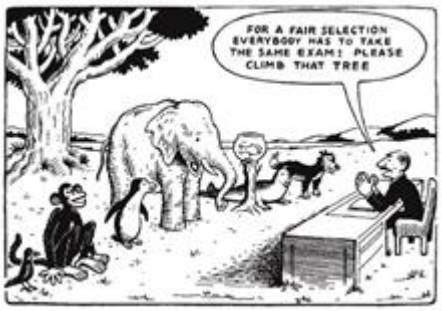


Fig no: 1 clip art for below quote

Everybody is a genius,

But if you judge a fish by its ability to climb a tree it will live its whole life believing that it is stupid.

-Albert Einstien

Multiple cases of committing suicide, running away from home just to avoid exams or peer pressure from parents or society. Which needs to be stopped not only on micro level but on Macro level too. Students need a foundation of basic knowledge, but as information can now be found anywhere it is even more crucial to know how to apply the knowledge, practicing skills like creativity, critical thinking, communication and collaboration.

Learning is limited in our schools within walls which needs to be replaced by networks of learning contexts to create a new educational model based on real- world connections. Bringing the community into the school and also providing the possibility to learn from experiences outside of school can create new ways of learning more relevant for our contemporary society.

2. INTRODUCTION

Since Independence the education system has not been able to evolve effectively. The system is still focused on scoring high marks in examinations that test a limited range of skills, mostly academic. The fact that each child is different is ignored in a majority of schools, where conformity is preferred over diversity. Children are focused into a testing culture that squeezes out the joy of learning and turns schools into “factories”.

In a survey submitted to Educational Consultants India Limited CIL in 2013, the group of dropout rates India is at a striking 16.8% from 2009-2010 rising from previous 14.2%, Cohort dropout rate is based on the inefficiencies of the education system. Also, a Major reason for dropping out was found to be loss of interest in studies. This loss of interest in studies could be because of the way our present schools are trying to educate. Such pedagogy kills the creativity of students .

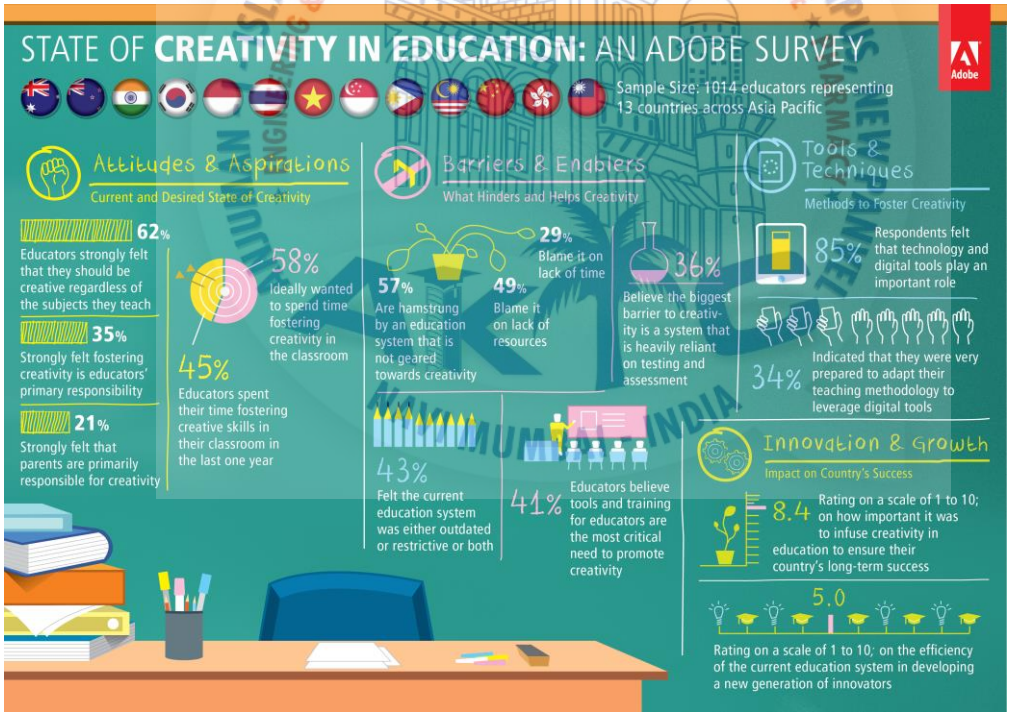


Fig no: 2 Above Survey shows the lack of creativity which needed in current growth.

In India schools have become like cages rather than liberators, restricting the first pick up of the childs imaginations, and passions. Enjoyment is no more a part of education and creativity and curiosity are nipped in the bud. (Woodward, 2003)

Hence there is a need to soften then system. While mainstream schools generally socialize children to fit into status-quo, Alternate education is a pathway to alternate visions and possibilities. Many schools have adopted some of the realization of full blown alternatives. The teaching should be child centric and should focus developing the child as whole , focusing on weak points with time flexibility, no competition.

Panchgani, though having a huge number and variety of schools. One of the school in Panchgani,Anjuman I Islam is going under redevelopment with infrastructure they will be upgrading curriculum. And Some that are present are only limited to primary schools. Some use holistic learning as the unique selling point but still not able look past the standard curriculum set by state boards. The project would aim at spreading awareness at alternative school/ centres in Panchgani ,Mahabaleshwar within nearby conventional schools.

2.1.1 BACKGROUND STUDY

HISTORY OF EDUCATION IN INDIA:

Education in Ancient India

Education in ancient India has always been believed to be very disciplined and well-organized, dating back to sometime during 3rd century B.C when traditional and religious knowledge used to be the main subject of learning. Palm leaves and tree barks were the writing pads and most of the teaching was oral by sages and scholars. Education in India became more relevant with the Gurukul System of learning that required students and teachers boarding together, passing on knowledge generations after generations. Religion, philosophy, warfare, medicine, astrology were the main subjects of teaching. Another unique aspect of this education was its free availability for all but was allowed a voluntary contribution called 'Guru Dakshina' which could mostly be afforded by few well-to-do families at the end of the courses.

Fig no: 3 Gurukul system.(under a tree,open spaces)

Education in the First Millenium or Medieval India

The beginning of the first millenium and some years preceding saw the starting of universities like the Takshashila University, Nalanda University, Vikramshila University and Ujjain. Concrete subjects of study came into being like Astronomy, Grammar, Logic,

Philosophy, Literature, Law, Medicine, Hinduism, Buddhism and Arthashastra (Politics and Economics), Mathematics and Logic. Each of the university specialized in a subject, with Takshashila focusing on medicine, the university in Ujjain on astronomy, whereas, Nalanda dealt with almost all the branches of study. Education was widely spread with the availability of schools in most of the villages in India, during the 18th century. Medieval times also saw the establishment of Madrasas and setting up of libraries and literary societies.

Fig no: 4 Nalanda University.(more like small amphitheatres,open spaces)

The Academic Situation in Modern India

Education in modern India started with the British era and thus, came the study of English language which was given more emphasis than other language learning. The recent form of education in India was an idea proposed by Lord Macaulay in the 20th century who believed that Indians should attain modern education to come out of their traditional thoughts, interests, intelligence and morals. The western education in India witnessed the setting up of several missionary colleges in various parts of the country. Post independence, the education sector was largely controlled by the central government but slowly became a joint effort by the central and the state governments through a constitutional amendment in 1976. By the start of 21st century, came education policies and planning like the free and compulsory education for children till 14 years of age policy and the plan to spend 6% of GDP in education, focusing primary education more.

Even though, India has a rich past when it comes to education, the country is still afflicted by high percentage of illiteracy and high rate of school dropouts.

https://beats.eckovation.com/brief-history-of-education-in-india/

Fig no: 5 seating arrangements in present school.(students feel less attentive, the curiosity to learn fades too)

Fig no: 6 present school.(all classrooms stacked one next other and one above other, it kills the fun to learn)

INTRODUCTION ON ALTERNATIVE EDUCATION:

Alternative education is a blanket term including a variety pedagogics approach that is different from the conventional system of education based on standardized curriculum and tests. A common principle behind these approaches is integrating learning i.e. the aim to develop the whole human being, rather than just one dimension. The stereotypical approach that is being followed throughout the country is a derivative of the industrial model of education. The English language and its importance- education schools created during the colonial period introduced this concept to Indian society. In India, English is given more importance than our own language, which is Hindi and other state languages, speaking in English also becomes a judging criterion in our society. This system was designed to produce standardized individual all having a similar set of skills that enabled them to fit into the industrial society. This system has lost its relevance in today's era is still being followed by us and giving it so much importance.

The early 20th century saw a number of movements against this education system all around the world. While thinkers and educationalists like Maria Montessori and Rudolf Steiner lead these movements in the west, while Rabindranath Tagore, Sri Aurobindo, and the Mother and Jiddu Krishnamurthy lead these movements in India.

An alternative school is one that employs non-traditional methods to educate students. The non-traditionality could be in the type of curriculum they offer teaching and administrative systems they employ or their techniques of evaluation.
Some types of schools based on such philosophies are : Montessori schools, Ashram schools, and Homeschools. There are some commonalities between these, but each philosophy has its own unique way of working.

Some commonalities are as follows:

- Individualized and child-centric approach.
- Integration of children of different socio-economic status and mixed abilities.
- An integrated approach to various disciplines.
- Experiential learning.
- Creative instructional learning.

- Low student-teacher ratios.
- Non-Traditional evaluation methods. (Aron 2009)(Vitachi,2007).
- Project-based system.

The architecture of such a school plays an integral part, by making physically possible the alternative ways working of such schools, and new modes of learning through new pedagogic approach. School architecture reflects the society in which it functions. A school built in today's era should reflect the progressive democratic society that characterizes India of today whereas a majority still reflect the industrial era. From standardized curriculum to standardized classroom layouts the conventional school systems consciously or unconsciously exhibit the industrial approach to education.

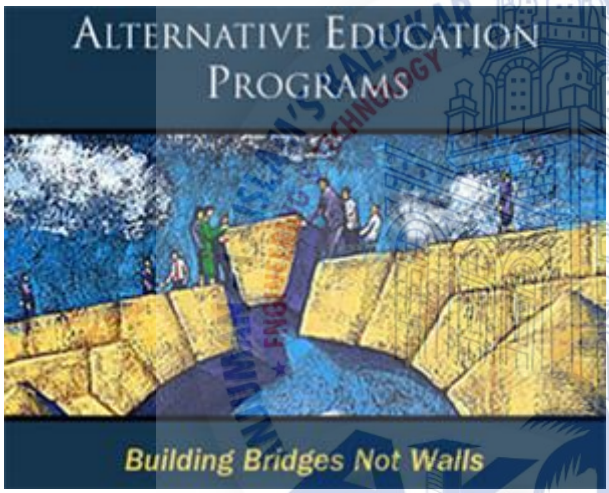


Fig no: 7 Alternative Education clipart.(the image shows that current education is restricting to think outside the box, they should expand their knowledge through alternatives by like more of experimental based , project based, hands on experience)(authors depection)

A. MONTESSORI EDUCATION THEORY

Fig no: 8 Montessori education school.(the environment of the classroom play an important role)

A Montessori classroom in the United States.

Montessori education is fundamentally a model of human development, and an educational approach based on that model. The model has two basic principles. First, children and developing adults engage in psychological self-construction by means of interaction with their environments. Second, children, especially under the age of six, have an innate path of psychological development. Based on her observations, Montessori believed that children who are at liberty to choose and act freely within an environment prepared according to her model would act spontaneously for optimal development.

Montessori saw universal, innate characteristics in human psychology which her son and collaborator Mario Montessori identified as "human tendencies" in 1957. There is some debate about the exact list, but the following are clearly identified:

- Abstraction
- Activity
- Communication
- Exactness
- Exploration
- Manipulation (of the environment)
- Order
- Orientation
- Repetition
- Self-Perfection
- Work (also described as "purposeful activity")

In the Montessori approach, these human tendencies are seen as driving behavior in every stage of development, and education should respond to and facilitate their expression.

Montessori education involves free activity within a "prepared environment", meaning an educational environment tailored to basic human characteristics, to the specific characteristics of children at different ages, and to the individual personalities of each child. The function of the environment is to help and allow the child to develop independence in all areas according to his or her inner psychological directives.

INFERENCES:

Mainly this education theory focuses on ENVIRONMENT as it play as important role in human development. The environment should exhibit the following characteristics:

- **An arrangement that facilitates movement and activity**
- **Beauty and harmony, cleanliness of environment**
- **Construction in proportion to the child and her/his needs**
- **Limitation of materials, so that only material that supports the child's development is included**
- **Order**
- **Nature in the classroom and outside of the classroom**

B. WOLDORF SCHOOL

In the **curriculum of the Waldorf schools**, much of the education in academic subjects takes place in blocks, generally of 3–5 weeks duration. Each pupil generally writes and illustrates a self-created textbook representing the material learned in the block. These blocks are supported by on-going classes in subjects such as music, art and crafts, and foreign languages that continue throughout the year.

The Encyclopedia of Education describes Waldorf education as a type of alternative school that focuses on a unique curricular and instructional approach. Other schools placed in this category by the encyclopedia are: Montessor ischools; open classroom schools; multiple intelligence schools; Paideia schools; free schools; Summerhill schools; as well as continuous progress schools and schools without walls. While each of these schools differ in their educational practice, they are similar in their attention to developing an alternative to traditional approaches to education.

In a Waldorf elementary school, the curriculum is presented through extended "main lessons" which focus on one subject in depth. This approach differs from other instructional approaches that allot equal time to every subject. In a Waldorf elementary school, the approximately two-hour-long main lesson "ties one topic to as many disciplines as possible". The main lesson is not taught from a textbook. The teacher will draw a colored chalk drawing on the board to introduce the theme or subject. The structure of the lesson will include activities that "call upon the child's powers of listening, of body movement, of thinking, and of feeling." These activities could include mental math, hand clapping games and jumping rope, folk dances, poetry recitation, singing, and writing and drawing in unlined "main lesson books". Teachers are free to include whatever activities they feel will work best for the children in the class.

In high school, students are taught by subject specialists rather than a class teacher. However, the "main lesson" structure remains. The entire curriculum, which is often discussed as an ascending spiral - or "spiral curriculum" - has been described in the following way

The year progresses with an in-depth study of, say, mathematics, tying it peripherally each day to allied topics- physics, chemistry, home economics and consumerism – each of which is studied separately in shorter classes later in the day. After a few weeks, one of the peripheral topics becomes the main topic…The result is that all subjects are studied in relation to all other subjects. Students learn what historic events were occurring as

Shakespeare wrote *Hamlet*, what music Newton might have listened to as he made his discoveries…

Fig no: 9 Woldorf Kindergarten (teachers play an important role in moulding a student)

C. KRISHNAMURTI EDUCATION THEORY

Education forms a central core of Krishnamurti's world view. In fact, Krishnamurti spent his entire life talking about education as being the agent not only of inner renewal but also of social change. Krishnamurti asserted that the schools functioning under the auspices of the Krishnamurti Foundation India (KFI), and others started independently by his supporters, did not exist as organizations for the indoctrination of children, but rather as places 'where students and teachers can flower, and where a future generation can be prepared because schools are meant for that.

Krishnamurti supporters founded several schools around the world. When asked, Krishnamurti enumerated the following as his educational aims:

Global outlook: A vision of the whole as distinct from the part; there should never be a sectarian outlook, but always a holistic outlook free from all prejudice.

Concern for man and the environment: Humanity is part of nature, and if nature is not cared for, it will boomerang on man. Only the right education and deep affection between people everywhere will resolve many problems including the environmental challenges.

Religious spirit, which includes the scientific temper: The religious mind is alone, not lonely. It is in communion with people and nature

Fig no: 10 KrishnaMurthy School.(https://www.theschoolkfi.org/the-school/curriculum.php)

Fig no: 11 KrishnaMurthy School.(https://www.theschoolkfi.org/the-school/curriculum.php)

Fig no: 12 KrishnaMurthy School.(https://www.theschoolkfi.org/the-school/curriculum.php)

D. SECMOL

According to UNICEF, "alternative education is the overarching term that refers to all types of education programs that are often not considered formal education programs by agencies, governments, and donors. Often, but not exclusively, alternative education programs are offered outside the auspices of the formal government and education system."

Such institutions of alternative education are believed to help the students think differently. These schools can be found in various states throughout India and are most prevalent in primary education. Whether or not the alternative education models fit the criteria of a "school" as defined by the Right to Education Act is highly debatable.

Many students in India find themselves stuck in a rigid curriculum that emphasizes theoretical knowledge more than practical experience. Well-respected professional institutions demand that students achieve top marks in their secondary examinations and entrance exams. India has the highest suicide rates among youth, according to a World Health Organization report published in 2012. The linkage between academic pressure and suicides has been more visible recently. The National Crime Record Bureau, an Indian governmental organization, reported nearly 2000 deaths in 2014 among students because of failure in examinations.

However, alternative education is believed to decrease stress levels among students, increase their understanding of the subject through practical experience, improve their personality, and boost confidence.

SECMOL is an educational initiative that it is unique—blending education local needs and global exposure. "Here we do activities, we do talent show, we play games," Chokrap explains with excitement. "SECMOL gave me an idea—you can do your own job."
Students take on various responsibilities from farm to kitchen. In May of every year, students start farming and grow various fruits and vegetables. Greenhouses are maintained and run by the students, and a storeroom is used as a natural refrigerator for food. Farming remains a part of the Ladakhi cultural heritage.

The SECMOL campus has achieved an eco-friendly status by adopting sustainable solutions. Solar energy is used to cook food, heat water and provide electricity. Compost toilets provide a great fertilizer for the farms and also reduces the amount of waste produced.
Cleaning, receiving guests, housekeeping, cooking, and even the construction of the campus are done with the help of the students.

“If they make the system, they don’t want to break the rules,” says Kanchok Norgay, director of SECMOL. Norgay first joined SECMOL in 1999 and has helped it grow.

Student groups and volunteers are invited from India and abroad for educational and cultural purposes. By communicating in English, volunteers help the kids improve their language skills, sharing their knowledge crafts, language, calligraphy, or other arts.

One such volunteer is Hemani Jain who is doing her fellowship at SECMOL . She is a part of a non-profit educational organization in Mumbai, and at SECMOL, she gives mathematics lessons to the kids in the foundation year.
“The first thing that I saw over here is that the entire campus is student-led, which is a very unique thing,” says Jain.
“We just produce some students who are very good in academics but they don’t know how to apply that knowledge in real life,” Jain says. She has lived in 11 cities across India. In spending a month in SECMOL, she hopes to learn creative ways to apply knowledge to real.
“I didn’t know anything about Ladakh but I love working with students. So I came here and (now) this is my second home,” says Malin Linderoth, the volunteer coordinator at SECMOL, who came from Sweden in 2014.
The students “are not afraid to speak their mind." Linderoth adds, "And we try to open their minds to broaden their views, to see beyond Ladakh as well.”
Many student groups also visit SECMOL to learn about architecture and solar technology. When asked how alternative learning is different from a conventional school education, Ronak, an architecture student from Mumbai, answers, “Basically this education system is without peer pressure. There is no pressure of excellence—it’s all about learning.”
A prominent figure in the movement, Wangchuk, has plans to put together a university based on alternative education so that students in Ladakh can continue their higher education in a nonconventional way.

SECMOL is one of the many examples of an alternative education that places more emphasis on practical learning and individual learning with minimum stress on academic excellence. Positively impacting children such as Chokrap, alternative education is helping generation Z in the rural areas to be more creative, develop a problem-solving attitude, and think globally about sustainability.

The Associated Chambers of Commerce and Industry of India (ASSOCHAM) in 2016 released a report suggesting that only 7 percent of all the business school graduates in India are employable. Another such survey by All India Council for Technical Education reported that more than 60 percent of engineering graduates remain unemployed. These statistics suggest that an urgent intervention to improve the education system in India is needed.

Alternative education is one such intervention, mostly promoted by private organizations in India that favor a non-authoritarian learning model. Although few in numbers, such institutions of alternative education are preparing a generation of students who are more skilled and more practical and who believe in pursuing their own creativity.

https://pulitzercenter.org/reporting/ladakh-sustainable-living-and-learning-through-alternative-education#slideshow-7

Fig no: 13 Sonam Wangchuks Ice stupa (Innovation in the context itself , for betterment of the society it can be can in experimental schools)

E.BAUHAUS

The news that Harvard University has put over 32,000 digitised Bauhaus School works online set the creative world buzzing recently.

In the 1920s and 30s, a period of increasing mechanization, Bauhaus teachers and students challenged the conventions of fine art, architecture and design by advocating a return to individual craftsmanship. They also rejected the flowers and frills that dominated the design language of the early twentieth century, and instead sought solutions that were simple, rational, and functional – an approach that remains dominant in design today.

In this article, we'll explore what the movement was about, outline five lessons the Bauhaus School can offer to today's designers, and demonstrate how contemporary web design continues to show Bauhaus influences.

What was the Bauhaus School?

Fig no.14 The Bauhaus School building in Dessau, where the institution was based between 1925 and 1932.

The Bauhaus School operated in Germany between 1919 and 1933. As a school of thought, it advocated a new way of approaching problems in art, architecture, and design; and as a physical school in Weimar and Dessau, it hosted a succession of prominent course leaders. Teachers included avant-garde artists like Johannes Itten, Paul Klee and Vassily Kandinsky, while Bauhaus students included Josef Albers, Herbert Bayer and Gunta Stölzl.

After the rise of the National Socialists, who effectively shut down the school for its "degenerate" ideas, many members of the Bauhaus travelled to other European countries and the USA to continue their work independently. As a result, "Bauhaus" became a twentieth-century movement reaching far beyond the Weimar Republic.

What was it like to study there?

Education at the Bauhaus School was diverse and hands-on, spanning **building theory, carpentry, ceramics, fine art, graphic printing, glass and mural painting, weaving, geometry, mathematics, business administration, metal, photography, printing and advertising, and plastic arts. Even parties and stage performances** were part of the curriculum, with students encouraged to experiment in costume and stagecraft.

Whereas a conventional education for an artist might focus on brush technique and paint mixing, a Bauhaus teacher would direct the student to study the fundamentals of colour and form, and encourage experimentation across a whole range of materials and disciplines.

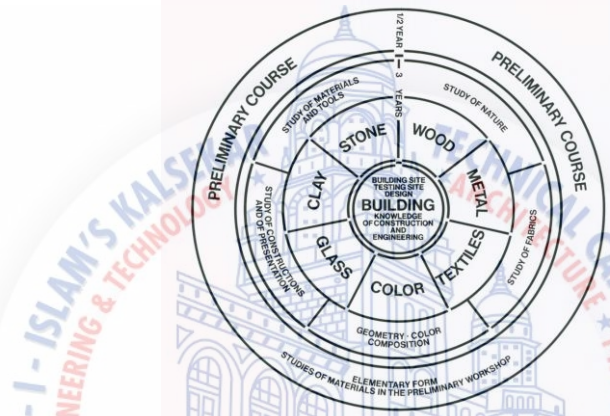


Fig no: 15 Bauhaus education model

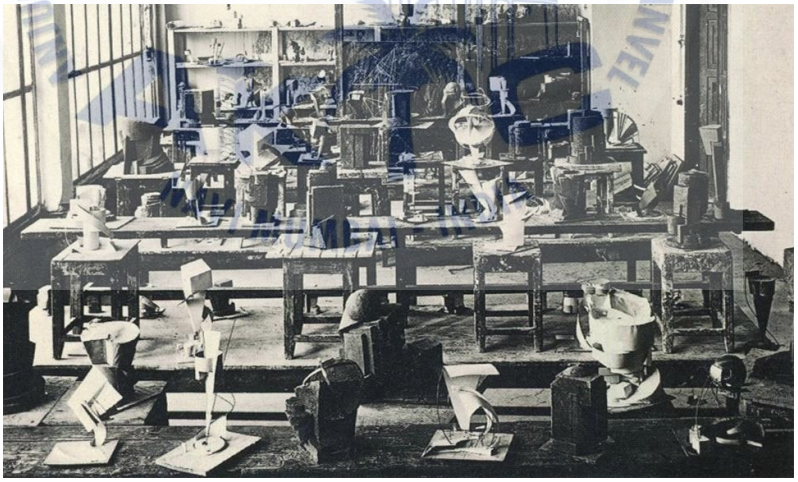


Fig no: 16 wooden sculpturing(hands on experience)

INTRODUCTION TO SITE CONTEXT

Talking about educating the youths in the direction of tradition, there is no serious contribution in the field of education. Everybody, today wants to pursue the field of Engineering or Medical, which makes India a top producer of Engineers and Doctors, which shows the quantity but lack in quality. Hence, it becomes essential to promote India's culture amongst its youth by incorporating it into the field of education. Therefore, becomes necessary to establish an institution to educate students full time, which will help citizens to realize the importance.

Mahabaleshwar, Maharashtra experiences a tropical climate. With extreme rainfall and extreme cold. Designing a school in this region will be challenging. Panchgani as an education hub with 40 residential schools and being a student of Anjuman-I-Islam degree college, this board has many other schools all over India.
A school in Panchgani need a sudden change in curriculum as it following old state board system which has got outdated and which led to less approach of new students and infrastructure also needs to be redeveloped. So introducing alternative education in such a scenario might create a great impact within the area and other residential schools.

ANJUMAN-I-ISLAM SCHOOL, PANCHGANI

At present, the prime focus of Anjuman is towards quality education, transparency, growth to become world-class Educational Social Service organization. Anjuman-I-Islam provides several services and facilities to the society through various programmes and also manages 15 trusts.

SITE-BACKGROUND STUDY
ANJUMAN-I-ISLAM , PANCHGANI

THE IMAGE SHOWN BELOW INDICATES THAT THE STRUCTURE SHOULD BE DESIGNED AND EXECUTED ALONG THE LINES OF THE CONTOURS AND NOT DIGGING UP THE CONTOURED LAND AND MAKING IT FLAT. THIS HAS AFFECTED THE DRAINAGE AND STRUCTURAL SYTEM OF THE EXISTING STRUCTURES BE IT LOAD BEARING OR R.C.C.

INCORRECT METHOD

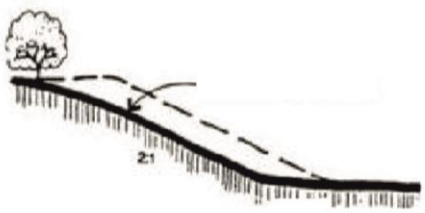
CORRECT METHOD

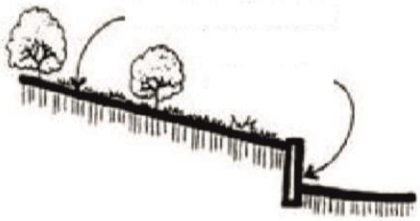
INCORRECT METHOD

CORRECT METHOD

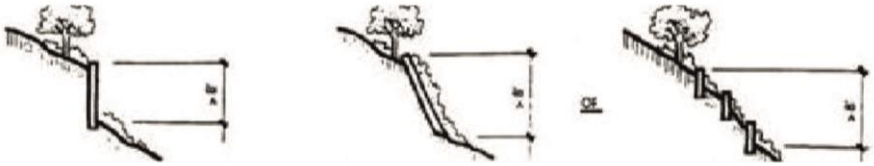
THE ORIENTATION OF STRUCTURE ON A CONTOURED SITE PLAYS AN IMPORTANT ROLE

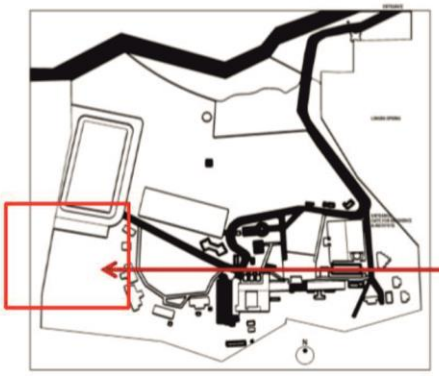
PATHWAYS AND ROADS SHOULD BE DESIGNED KEEPING IN MIND THE EXISTING CONTOURS LEVELS. LANDSCAPE AND DRAINAGE SYSTEM DESIGN SHOULD BE DONE ACCORDING TO THE NATURAL CONTOUR LEVELS EVEN IF THERE ARE ALTERATIONS IN THE EXISTING SITE USING PROPER DRAINAGE SYTEM TECHNIQUES.





RETAINING WALLS SHOULD BE PROVIDED WHEREVER THERE ARE ALTERATIONS IN CONTOURS OR CUTTING OF LAND

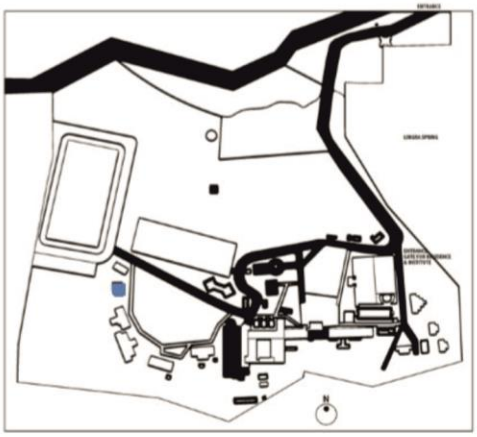




THE AMPHITHEATRE PROPOSAL ALONG THE LINES OF THE STADIUM SHOULD BE DESIGNED ALONG THESE REFERENCES

GYM

PROBLEM :
- DAMAGED WINDOWS AND VENTILATORS
- LEAKAGE FROM ROOF
- CRACKS IN WALL AND GAPS IN JOINTS
- MAINTAINANCE

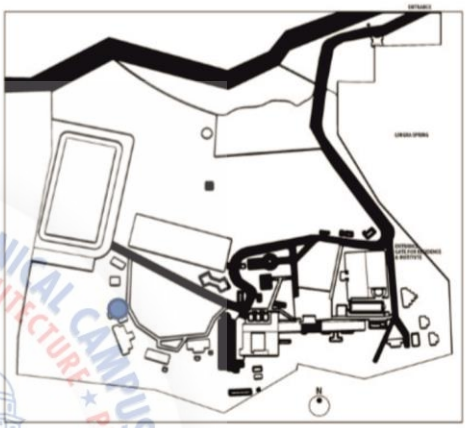


INDOOR GAMES ROOM


PROBLEM :
- DAMAGED WINDOWS AND VENTILATORS
- LEAKAGE FROM ROOF
- DAMAGED TOILET
- DAMAGED DOORS

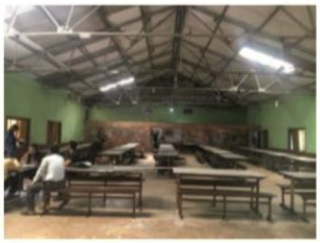


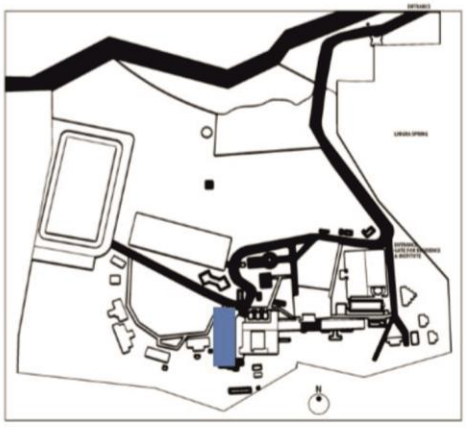




DINNING HALL


PROBLEM :
- POOR KITCHEN CONDITION
- DAMAGED ROOF



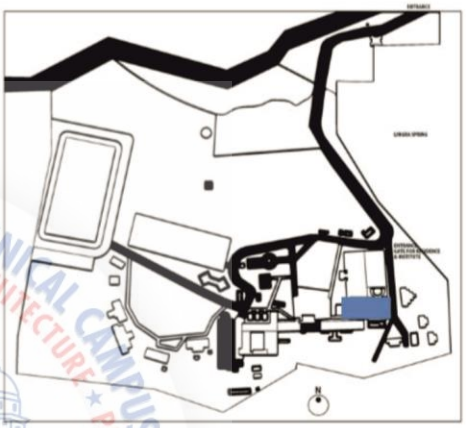


JUNIOR COLLEGE


PROBLEM :
- DAMAGED WINDOWS AND VENTILATORS
- DAMAGED WASHROOM
- LEAKAGE FROM ROOF
- DAMAGE IN FACADE
- OUTDATED FURNITURE



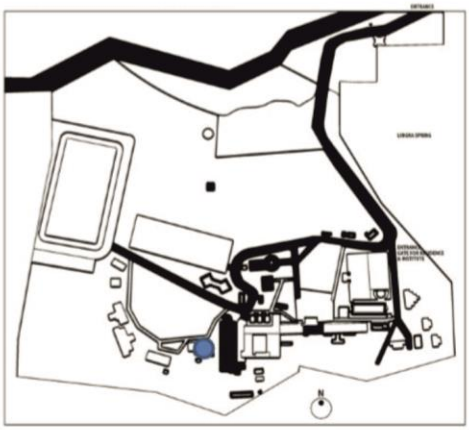




PEERBHOY DORM


PROBLEM :
- DAMAGED WINDOWS AND VENTILATORS
- UNEVEN SLOPE IN WASHROOM
- DAMAGE TILES IN WASHROOM
- LEAKAGE FROM ROOF
- DAMAGE IN FACADE
- OUTDATED FURNITURE



TOURISM IN PANCHGANI, MAHABALESHWAR

The picturesque hill resort of Panchgani stands at an altitude of 1334 m. The quintessential hill resort offers fabulous views of the Krishna valley. The modern hill resort of Panchgani boasts of natural beauty as well as collection renowned educational institutes. The five plateaus that surround Panchgani explain the name Panch(five) gani (plateaus). Panchgani is often referred to as the 'Mecca of Maharashtra'. The natural beauty has been the key reason of Panchgani Tourism.

Fig no: 17 Table land Panchgani (Tourist place.)

Fig no: 18 Mahabaleshwar Viewing Points (Tourist place.)

DHOKRA ART:

Over 10 years ago, the Mathur family formed a partnership with Suresh Pungati, a decorated adivasi from the Madhia tribe in the Naxalite hit district of Gadchiroli in northern Maharashtra. Suresh has a clear idea and vision, to ensure that Dhokra, the centuries old art form did not die out and that future generations took pride in their heritage and could earn a life and respect from practicing the art.

There are two methods used, one is the solid wax casting predominantly used in South India and the other is a hollow method which is used in Central India and by their tribes. The wax (traditionally made from beeswax, resin and nut oil) is used to create an image over a clay core, with intricate detailing and design. The mould is then covered in clay and other material and set in a kiln, before the wax is replaced with molten metal, mostly **brass from scrap**. The metal fills the hollow mould left from the wax and once the outer layer is removed, a piece of sculpture emerges. It is an incredibly intricate process, one that takes weeks to finish requiring a great amount of imagination and patience.

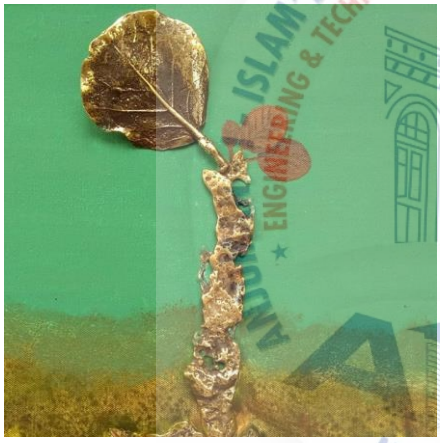


Fig no: 19 Dhokra art brass sculpture.

Fig no: 20 Dhokra art brass sculpture.

Fig no: 21 Dhokra art Workshop

2.1.2 AIM:

Revamping Anjuman-I-Islam school in Panchgani by introducing ALTERNATIVE programme of education.

2.1.3 OBJECTIVE:

- Anjman-I-Islam current scenario of SSC which needs to be upgraded as it is affecting
- Even though the site has such a powerful context but without lack of infrastructure and lack of quality syllabus, modern day parents hesitate enrolling their kids.
- Mahabaleshwar is a tourists spot and Panchgani being education Hub
- A proposal for enhancing their current issue of curriculum with alternative system upgrade the school and not only curriculum but a challenging curriculum for other boards in Panchgani.
- Anjuman-I-Islam used to be one of the best school in sports which can also be upgraded with better facilities and can be revived.
- Alteration in system will help children to sustain within the same context with project based learning.etc.
- Individual attention should be given for each student and teachers should plan accordingly.
- Being site specific activities and curriculum can be designed according to context.
- As Panchgani being tourists zone, this school can have workshops which can create interaction with Experts, students and tourists.
- Basic plantation of strawberries and other types of farming can be taught and practised in this school.
- 1.5lakh sq. mtr area of Anjuman I Islam can be zoned in such a way that all requirements of school, residential etc. will be well connected and efficiently planned with consideration of future.

2.1.4 SCOPE

- The school offers a space for children, elders with different fields to experiment and innovate.as well as promote the arts of Mahabaleshwar and vicinty
- It should change the perspective of a child towards the stereotypical learning pattern and come with more “why?” questions/ thoughts.
- It should be barrier free, open for all with no age restrictions.
- The school/centre offers basic etiquette, discipline and co-curricular activites .
- The part of the school can be transition between students and tourists which can be open for daily tourists which can spread the innovative alternate programme taught in this school.
- As the users will be mainly from near by village where, their main occupation is agriculture
- So this curriculum can have initiatives of farming techniques and how they can innovate within.

2.1.5 LIMITATIONS

- This centre will be near other institutes in Panchgani ,challenging the other existing curriculum schools.
- This research is more towards experimental basis.
- This program/ centre would be 100% functioning or not is still a question as it is experminetal.
- Site will have restrictions As it is on contours and climate gets extreme in winter and monsoon .

2.1.6 RESEARCH METHODOLOGY

- There have been many attempt made to improve the way of learning and teahing across the world by inventing many experimental schools and way of learning.
- Alternative schools and programs in India and all over the world by studying them it gives a good example to study and proceed for a free learning environment to study.
- As the schools in considered in Panchgani, basic art forms or plantation of strawberries farming etc. can be taught to young age group, invites for adults or experienced people can be collaborated with them.
- Focusing on the other measures like site context , it is important to study about the climatic conditions of Panchgani, typical architecture style or local materials . the opportunities and drawbacks of the site and context.
- Existing hostels and schools can be targeted like New era school, billimoria, vidyniketan , etc can be studied find pros and cons .
- Anjuman-I-Islam's school in panchgani had major failure in academics as it is outdated and infrastructure needs to be redeveloped.
- If this alternative schooling gets adapted in same society it will be more challenging for other nearby conventional schools.
- Focusing on neighbourhood how local people and their children get school facility and targeting these students which will help them to grow in an alternative way.
- Studying as many case studies in every aspects their pros and drawbacks etc.

2.1.7 HYPOTHESIS

A child spends one third of his life in education. In every country teaching techniques are unique, it is according to current NEED- Globalization. This NEED is given so much importance that it has overcome “quality” and focused more on “quantity”. This shows that we are expected to work like robots, and which is taught from schools. The spaces in school are so rigid designed and lack of free learning spaces. It is not more of project based learning. The environment of schools also affect the psychology of student and their behaviour.

This thesis focuses on re-development/revamp of Anjuman–I–Islam school, Panchgani. Where there is demand for better infrastructure and curriculum in needed. This Curriculum will teach children to sustain within the context as well as outside. As the users are from near by villages mostly from agriculture and tourism background. As this school also helps the minority population for education. It can become a better platform to introduce alternative programme.

An architectural intervention which Re-thinks or Re- conceptualize a school, as we call it alternative school. The project help students to learn freely and not restrict in one cell, it can be achieved by experimentation of spaces. Child should be able to express more of himself/herself rather than just instructed what to do. When a project like school comes in picture it is also important that curriculum needs to designed according to site context, the need of the people living in that area. Both spaces and curriculum should go hand in hand. It will become the soul of the project

There are alternative schools which are present in India, in which maximum schools are islolated from city , such schools should come more in picture wrt. To other schools.

2.2 LITERATURE REVIEW

2.2.1 DEFINATIONS AND DESCRIPTIONS

THE PSYCHOLOGY OF THE ENVIRONMENT

The psychology of the environment has been come up since 1960s in 20th century.This field of psychology is about territorial behaviours, density and crowds and environmental stress makers. It is a branch with close relation to architecture, perspective architecture and urban design (Luc, et al,2002). The psychology of the environment can be assumed as a scientific interdisciplinarity branch studying the mutual relationships between physical environment and human's behaviours. Considering the mutual relationship between the two elements (environment/ behaviour) is driven from Winston Churchill's the popular speech expressing " we construct buildings and after the buildings we are built".

Fig.22. Child friendly architecture

- **CHILD DEFINITION**

Child is a mature and human's son or daughter who has not been fully grown and is an independent creature from individual features point of view put in the growth and

development trend in which they have not reached to a level to be called matured but they are originally and naturally dynamic and potentially to be developed.

- **OBJECTIVITY AND SUBJECTIVITY IN CHILDREN ARCHITECTURE**

Today, the most important issue in architecture is the identity of architecture space and understanding it by users. To achieve this goal defining and re-introducing the environment and receiving its messages are needed. To do this there are different ways including experiencing the space by which objectivities can be achieved and compare them with primary thoughts and form them.

- **CHILD'S SPATIAL PERCEPTIONS**

To put simply, child's spatial perceptions is how a child see the world and understand it. The purpose of recognizing the perceptions is to find a way to strengthen child's feeling perceptions and improve the quality of the space and environment to grow and develop the child. Child's spaces should be a creative one.

- **CHILD'S SENSES AND PERCEPTIONS GROWTH IN THE ENVIRONMENT**

In a child's room, all cases including lighting, temperature, colour, safety and hygiene should be regulated and controlled. Thus creating a favourable environment in terms of health and environmental monitoring, is necessary. Most children make contact with the environment through the senses. In the first years of growing, two main tools of the child's cognitive change into visual and tactile senses.

How to use it in spaces	Specifications	Color
Using it in the environments of game, show and sport	warm color and stimulating Passion and love, sincerity	Red
For Educational spaces in elementary school – due to the prevention of drowsiness and lethargy in children ... lively, invigorating, warm peace of the children	Energizing and stimulating color	Orange
Its combination with other colors and use it in the space of rest	indicating Love and romance	Pink
It is better to use the color with combination with other colors inclasses and educational spaces	Expresses the sense of relief - represents peace, security and order-expresses the feeling of sorrow, introspection and isolation in some people	Blue
To make interior decoration happy and bright	Warm and happy color- stimulating thought- making eyes bored more than other colors	Yellow
For decorating studying rooms, educational spaces and a place needs consentration.	Cool color and a symbol of nature - represents peace, happiness, health and jealousy, gaining the ability to read	Green
Pale violet spectrum in space and educational environment, gives peace and happiness. as a result it can be used practical and craft classes .	The most spiritual color represents harmony between reason and emotion and border between spirituality and materialism	Purple

TABLE 1 .General Psychology of colours and how to use them in spaces

The place of use	Excited emotions	Form
Child's play space	Imaginery-creative imagination	Irregular forms
Entrance	Caller	Concave form
emphasis points and pausing space	Innovation and complexity	Static form
	Suggests the status of rejecting	Convex form
Children love the spaces	Softness and comfort	Soft and arched form
Passage	Comfort and mobility	horizontally Expanded form
	Hard	Angular and broken forms

TABLE 2.General Psychology of forms and how to use them in spaces

- **SUSTAINABLE SCHOOL**

A sustainable school adopts a "whole-school" approach; one that extends beyond the curriculum and addresses the entire planning, operation and management of the school facility. School sustainability policies can reinforce what is taught about sustainability in the classroom, improve the school's own carbon footprint and strengthen public relations with the surrounding community.

Goals of sustainable schools _ by http://www.cpas-egypt.com/

- Result from a well understood, and organization-wide, proactive commitment to engage in sustainable development as a positive social and economic driver.
- Meets the functional needs of the school and integrates with the wider community through consideration of shared and communal facilities and mixed-use development.
- Recognizes people as the most important assets of a school
- Enhances the teaching and learning environments through healthy and vibrant internal environments including excellent levels of natural light and ventilation and quality external environments that facilitate outdoor activities
- Does not endanger the health of the occupants, or any other parties, through exposure to pollutants, the use of toxic materials or providing host environments to harmful organisms
- Is responsive to local community needs, requirements and aspirations,
- Enhances biodiversity locally by landscaping based on best practice guidance and globally by not using materials from threatened species or environments.
- Does not cause unnecessary waste of energy, water or materials due to short life, poor design, inefficiency or poor construction and manufacturing procedures
- Uses materials that are environmentally benign in manufacture, use and disposal

- Is affordable to run and simple to manage and maintain in a benign manner.
- Does not consume a disproportionate amount of resources, including land during construction, use or disposal
- Uses renewable and recycled and recyclable resources wherever possible
- Has a green travel plan at inception to create minimum dependence on polluting forms of transport and encourage access to, and the development of, safe, non-polluting and sustainable forms of transport.
- Is flexible to facilitate changes in demographics and technology and allows expansion or contraction in the future, where appropriate.
- Has on campus food production committee and farming as allied subject

Fig.23. child friendly healthy green campus

- **LEED**

In 2000, USGBC established the LEED rating system as a way to define and measure ―green & Sustainable buildings.LEED is an internationally recognized green building certification system, providing third-party verification that measures how well a building or community performs across all the metrics that matter most: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. The suite of LEED rating systems are designed to address the complete lifecycle of buildings.

Each rating system provides a concise framework for identifying and implementing practical and measurable green building solutions. LEED points are awarded on a 100-point scale, and credits are weighted to reflect their potential environmental impacts. A project must satisfy specific prerequisites and earn a minimum number of points to be certified. Certification levels, based on the number of points, include: Certified, Silver, Gold, and Platinum.

- **LEED FOR SCHOOLS**

The LEED for Schools Rating System recognizes the unique nature of the design and construction of K-12 schools. Based on LEED for New Construction, it addresses issues such as classroom acoustics, master planning, mould prevention, and environmental site assessment.

By addressing the uniqueness of school spaces and children‘s health issues, LEED for Schools provides a unique, comprehensive tool for schools that wish to build green, with measurable results. LEED for Schools is the recognized third-party standard for high performance schools that is healthy for students, comfortable for teachers, and cost-effective.

- **THE SCHOOL AS A TEACHING TOOL**

Teachers at green schools can use the building as the basis for innovative curricula. The school can serve as a tool for hands-on lessons, such as math students tracking and charting utility cost savings, science students analysing the environmental impact of traditional cleaning products compared to eco-friendly ones, and students designing their dream sustainable homes using the types of systems and innovations used to green their school. Exercises like these help students connect to their environment and understand the effect that buildings have on land, natural resources, and their communities.

- **PEDAGOGY**

Pedagogy (most commonly understood as the approach to teaching) refers more broadly to the theory and practice of education, and how this influences the growth of learners. Pedagogy, taken as an academic discipline, is the study of how knowledge and skills are exchanged in an educational context, and it considers the interactions that take place during learning

The pedagogy adopted by teachers shape their actions, judgments, and other teaching strategies by taking into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. Its aims may include furthering liberal education (the general development of human potential) to the narrower specifics of vocational education (the imparting and acquisition of specific skills).

- **PEDAGOGICAL CONSIDERATIONS**
- **HIDDEN CURRICULUM**

A hidden curriculum is a side effect of an education, "[lessons] which are learned but not openly intended" such as the transmission of norms, values, and beliefs conveyed in the classroom and the social environment.

- **LEARNING SPACE**

Learning space or learning setting refers to a physical setting for a learning environment, a place in which teaching and learning occur. The term is commonly used as a more definitive alternative to "classroom,". but it may also refer to an indoor or outdoor location, either actual or virtual. Learning spaces are highly diverse in use, learning styles, configuration, location, and educational institution. They support a variety of pedagogies, including quiet study, passive or

active learning, kinesthetic or physical learning, vocational learning, experiential learning, and others.

- **LEARNING THEORY (EDUCATION)**

Learning theories are conceptual frameworks describing how knowledge is absorbed, processed, and retained during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, or a world view, is acquired or changed and knowledge and skills retained.

- **DISTANCE EDUCATION**

Distance education or long-distance learning is the education of students who may not always be physically present at a school. Traditionally, this usually involved correspondence courses wherein the student corresponded with the school via post. Today it involves online education. Courses that are conducted (51 percent or more) are either hybrid, blended or 100% distance learning. Massive open online courses (MOOCs), offering large-scale interactive participation and open access through the World Wide Web or other network technologies, are recent developments in distance education. A number of other terms (distributed learning, e-learning, online learning, etc.) are used roughly synonymously with distance education.

- **PEDAGOGICAL APPROACHES**
- **CRITICAL PEDAGOGY**

Critical pedagogy is both a pedagogical approach and a broader social movement. Critical pedagogy acknowledges that educational practices are contested and shaped by history, schools are not politically neutral spaces and teaching is political. Decisions regarding the curriculum, disciplinary practices, student testing, textbook selection, the language used by the teacher, and more can empower or disempower students. It recognises that educational practices favour some students over others and some practices harm all students. It also recognises that educational practices often favour some voices and perspectives while marginalising or ignoring others. Another aspect examined is the power the teacher holds over students and the implications of this. Its aims include empowering students to become active and engaged citizens, who are able to actively improve their own lives and their communities.

Critical pedagogical practices may include, listening to and including students' knowledge and perspectives in class, making connections between school and the broader community, and posing problems to students that encourage them to question assumed knowledge and understandings. The goal of problem posing to students is to enable them to begin to pose their own problems. Teachers acknowledge their position of authority and exhibit this authority through their actions that support students.

- **DIALOGIC LEARNING**

Dialogic learning is learning that takes place through dialogue. It is typically the result of egalitarian dialogue; in other words, the consequence of a dialogue in which different people provide arguments based on validity claims and not on power claims.

- **STUDENT-CENTRED LEARNING**

Student-centered learning, also known as learner-centered education, broadly encompasses methods of teaching that shift the focus of instruction from the teacher to the student. In original usage, student-centered learning aims to develop learner autonomy and independence by putting responsibility for the learning path in the hands of students. Student-centered instruction focuses on skills and practices that enable lifelong learning and independent problem-solving.

2.2.2 ARTICLES BY OTHER AUTHORS AND INTERVIEWS(NEWS PAPER ARTICLES)

Last School: A Short History

This note, giving a short historical background to secondary education in Auroville, was written originally for parents of potential Last School students to help them make sense not only of the orientation of Last School but also to aid them in making conscious choices.

The very first Auroville 'school' came into being on the Last School campus in 1970-71.

This was subsequently shut down in the years of 'political unrest'. It was in 1985, after a hiatus of almost a decade, that Last School reopened as a school for Auroville's young adults and teenagers. Through a long period thereafter, Last School was the only school for teenagers in Auroville. Students automatically 'graduated' to this school from Transition which was for some years the only primary school. Last School used all the buildings on the campus and the student body was in the range of 60-70 or thereabouts.

The arrival of school-going adolescents on Auroville's educational scene raised many new, and till then unanticipated issues. Besides their more complex developmental needs, it is when children arrive at their teens that many of the hitherto unaddressed dormant questions arise. These questions concerning the future – issues related to security, to the capacity for and pursuit of success and career and the ability to make money – were similar to many of the intentions at the heart of modern, utilitarian, industrial age education. What kind of education should the youth growing up in Auroville, be given? A whole gamut (perhaps even a cacophony) of views emerged.

Last School, of course, as Auroville's only secondary school, was caught in the eye of the storm. What was evident in the many debates was a polarization of views. At one end of the spectrum was the view that Last School's approach was 'too mental' (the big 'put down' of those days) – that the pursuits of the mind were an 'old world' approach not meant for Auroville, a place where 'all life was yoga'. At the other end of the spectrum were those who wanted to have done once and for all with excessive experimentation, which was seen as the bane of Auroville education, and who wished for a clear and firm adoption of some systematized certification system. Both extremes of the debate forgot something of what Mother had indicated. When she spoke of what life in Auroville ought to be, she clearly demanded a collective ideal that was ' life that wants to grow and perfect itself'. And as for the pursuit of certification as an end in itself, she diagnosed this as the disease of the modern world, something she did not want in her school. (Her remarks apropos are attached at the end of this note).

In this debate, the Last School team ended up displeasing both ends of the spectrum because it seemed to adopt a vaguer, somewhat muddling, centrist approach – a sort of responding to circumstances as they arose. But still, there were major inner changes which were a direct result of the ferment. For one thing, there was a sifting in the team and those who remained, the core group that is still present, arrived at a common set of key recognitions. The more important of these was that the vital being of AV teens needed to be much more 'settled'. A primary need was therefore the creating of a physical/vital environment that would help this part of the nature find within itself a space of calm and beauty. Repeated experiences served to show that this was a solid base on which the pathways to awakening complexity in the

mind could be securely built. Conducive conditions had to be created whereby the mind could plumb its depths and soar to heights and become capable of real synthesis. This period saw the birth of the Pyramids as a place for a 'Tapasya of Art'. It was in this time that the importance of art and poetry and literature, of the humanities – history, culture, philosophy – approached in a more and more Aurobindonian way, came to the fore. It was also the period where the importance of endurance training through activities such as treks began to be planned at the school level.

While this deeper internal structuring was happening apace in Last School, many larger developments were occupying the education scene of Auroville. In the mid-90s CFL (Centre for Further Learning) and After School, for the O and A Levels and the Indian Open School exams, were started. These later morphed into what are today Future School and NESS respectively. On an outward level, this period also saw Last School endure much unpleasantness. For a long time, there was an organized attempt to bring to a close this experiment – almost as if the ending of free progress experimentation in Auroville would in some way legitimize other choices!

Looking back, the Last School team recognizes that there was a kind of Grace in all this. These difficulties served to liberate the team more and more from the hold of conventions. There was more room for real experimentation. In the last decade, with secondary level options available within Auroville, it has been largely those parents and those youngsters who have chosen to come to Last School who feel deeply that Mother's idea of 'a growth of consciousness aimed at increasing perfectibility' will give them everything they could possibly need (whether as adults they ultimately choose to express themselves within Auroville or elsewhere).

It can be said that two types of students have come to Last School in recent years. There is always a small group of those who cannot fit into any of the other schools who turn to Last School as the very last port of help. Such students either stay only so long as they need to, to sort out their problems so they can return to the more 'main-stream' options, or they feel sufficiently enthused by the LS approach that they choose to remain and grow in this experience. The second category is the more 'brave' and consciously iconoclastic types who deliberately choose LS. These may be anyone: students from outside, who come (or whose parents bring them) to Auroville to experience a period 'breathing the air of free progress' (we always seem to have a few of this category); more often, it is the Auroville youth that appear to know inwardly that this is their place. These last have afforded the school some lovely moments: with whom teachers have discovered such joy of learning and growing together, that any educator would dream of encountering.

One such group has had a book, *Passage*, dedicated to their educational development. This book was released two years ago by the Minister of HRD (the Minister in charge of Auroville in Delhi) on a visit he made especially to Auroville. Those who consider putting their children in Last School can read this little book which not only records and illustrates the students' growth, but also serves as an account of the experiment that is Last School – its contents and methodologies, and the aspects of the students' natures which are attempted to be consciously sounded. Finally, and more importantly, it attempts to be a little handbook of Mother's words with regard to the education she envisioned for Auroville.

The Mother on Certification

For the last hundred years or so mankind has been suffering from a disease which seems to be spreading more and more and which has reached a climax in our times; it is what we may call 'utilitarianism'. People and things, circumstances and activities seem to be

viewed and appreciated exclusively from this angle. Nothing has any value unless it is useful. Certainly something that is useful is better than something that is not. But first we must agree on what we describe as useful—useful to whom, to what, for what?

For, more and more, the races who consider themselves civilized describe as useful whatever can attract, procure or produce money. Everything is judged and evaluated from a monetary angle. That is what I call utilitarianism. And this disease is highly contagious, for even children are not immune to it. At an age when they should be dreaming of beauty, greatness and perfection, dreams that may be too sublime for ordinary common sense, but which are nevertheless far superior to this dull good sense, children now dream of money and worry about how to earn it. So when they think of their studies, they think above all about what can be useful to them, so that later on when they grow up they can earn a lot of money. And the thing that becomes most important for them is to prepare themselves to pass examinations with success, for with diplomas, certificates and titles they will be able to find good positions and earn a lot of money. For them study has no other purpose, no other interest.

To learn for the sake of knowledge, to study in order to know the secrets of Nature and life, to educate oneself in order to grow in consciousness, to discipline oneself in order to become master of oneself, to overcome one's weaknesses, incapacities and ignorance, to prepare oneself to advance in life towards a goal that is nobler and vaster, more generous and more true... they hardly give it a thought and consider it all very utopian. The only thing that matters is to be practical, to prepare themselves and learn how to earn money. Children who are infected with this disease are out of place at the Centre of Education of the Ashram. And it is to make this quite clear to them that we do not prepare them for any official examination or competition and do not give them any diplomas or titles which they can use in the outside world.

We want here only those who aspire for a higher and better life, who thirst for knowledge and perfection, who look forward eagerly to a future that will be more totally true. There is plenty of room in the world for all the others.

NEWS PAPER ARTICLE: AN INTERVIEW WITH KEN ROBINSON

Your new book offers wide-ranging advice for parents as they try to manage their children's education. If you had to choose one takeaway, what would it be?

Parents have more power and more choices than they may realize in educating their children. Many parents are worried about how the world is changing and the uncertain futures their children face. Parents are especially anxious about education. They worry that there's too much testing and competition, that the curriculum is too narrow, that their children are not treated as individuals and that schools are not cultivating their curiosity, confidence and creative talents.

They worry about how many young people are being medicated for "learning problems." They worry about the rising costs of college and whether their children will eventually find a job, whether or not they go to college. Often parents feel powerless to do anything about all of this. The good news is that a great many educators share these concerns and are also campaigning for change.

While it's reasonable to lay heavy responsibility on parents for charting the path of their children's education, they are no match for the bureaucracy of any single school, let alone a state or federal Department of Education. How can parents expect to have any real impact?

The challenges parents face and the options they have are naturally affected by their circumstances. Parents living in poor neighborhoods with limited resources face different challenges from those in wealthy suburbs with paid help. Some parents can pay for the education they want; most cannot.

In general, they have three options: They can work for changes within the current system, particularly in their children's own school; they can press for changes to the system; or they can educate their children outside the system. Whatever their circumstances, parents are not powerless and their voices must be heard.

Is there one school system you think is doing things right? And if so, how?

Governments everywhere are trying to improve education. For decades, the main strategies have been standardization, competition and incessant testing, especially in literacy, mathematics and science. It's been a partial success at best and in many ways a dismal failure. The story in Finland is different.

Finland is regularly at or near the top of international league tables in those disciplines but its success is much broader. Significantly, there is no mandated curriculum in Finland. Schools are encouraged to follow a broad curriculum that includes the arts, sciences, mathematics, languages, humanities and physical education. There is hardly any standardized testing.

Finland invests heavily in the selection and training of teachers, and teaching is a high-status profession.

The Finnish system is not perfect and it's still evolving, but it's succeeding against a wide range of measures, where many other systems fall tragically short, and it's doing that by following a different path.

You talk about the stress students are under these days. What's the best way for a parent to ease that stress, while still keeping their students competitive in a very tough and demanding global environment?

In the United States, more than eight out of 10 teenagers experience extreme or moderate stress during the school year, including headaches, loss of sleep, anger and irritability. The main causes include anxieties about academic performance, the pressures of testing, and parental pressures to excel at school and get into a good college.

Many young people feel overscheduled with nearly every waking hour being assigned, plotted and planned with little time for just "being a kid." Parents can help in three ways: by learning to recognize the signs of "toxic" stress, by easing the pressures at home through encouraging more downtime and by working collectively with the school to reduce some of the avoidable causes of stress, including the often excessive levels of homework and testing.

You have been critical — as have many — of standardized testing. If you could change it, how would you do it differently? End it altogether? Change the format? Do it less often? And if the last, how do you ensure that students are learning what they need to know?

There was a time when school students could expect to take a few tests each year. Now they face a seemingly endless steeplechase of tests, sometimes starting in kindergarten.

High-stakes testing was meant to raise standards in education. Instead, it's generated a dreary culture of incessant competition, which has soaked up billions of taxpayer dollars with no significant improvement in standards, causing enormous stress for teachers, children and their families. Constructive assessment is an essential part of high-quality education, and some forms of diagnostic testing can be helpful. The usual forms of high stakes testing are neither constructive nor essential.

The proper purposes of assessment are to support and improve student learning and to provide an informative record of their achievements. There are many better ways to do this than through the barren rituals of bubble tests.

What is your view of charter schools? Would you encourage or discourage their existence?

Charter schools are independently operated public schools, which have freer rein than regular public schools in what they teach and how they are run. In themselves, they are neither better nor worse than ordinary public schools. Some are very successful, others less so.

One argument for charter schools is that they can invigorate the public sector by spreading new practices. Some do and some don't. Another is that they give parents more choice in education. The choice can be more apparent than real. All schools have limited spaces, and popular ones soon become oversubscribed. Either way, for most families, public schools are still their best opportunity in education.

If you were the United States education secretary, what is the first thing you would do to change the American school system?

What is education for? In my view, it is to enable all students to understand the world around them and the talents within them so that they can become fulfilled individuals and active, compassionate citizens. The proper role of government is to create the best conditions for that to happen.

If I were secretary, I would encourage all schools to adopt a broad and balanced curriculum including languages, math, the arts, sciences, humanities and physical education, and develop nonstatutory guidelines and resources to support them. I would roll back the current testing requirements in favor of more informative approaches to assessment. I would support the comprehensive development of early-years education. I would institute a "soup to nuts" review of the selection, training and support of teachers. I would introduce incentives for creative partnerships between schools, families, cultural organizations and the private sector.

In these and other ways, education can and must change — for all our sakes.

Sir Ken Robinson is a widely recognized global leader in efforts to transform education. His online presentation for the prestigious TED conferences has drawn a record 50 million views. A professor emeritus at the University of Warwick in Britain, he advises governments, corporations, education systems and leading cultural organizations.

NEWS PAPER ARTICLES:

Is India preparing her students for the rapidly changing world?

STEVEN EDWARDS

We are living in an era of high-stakes testing and global comparisons, and the need for re-examining the world's educational systems is critical. The real challenge for schools is threefold: to prepare students to thrive in a competitive global labour market after completing their education; to achieve community harmony on a global scale; and to promote cultural diversity and the value of universal citizenship in a global community.

It is evident that schools in India (in fact, in most countries) have not kept up with the pace of change in the global society, and are therefore not preparing students well enough for real-world life and the working environment they will face after they have finished their education.

Students today need to learn valuable 21st century skills. For children to be competitive in the future, is it essential that India transitions to an educational system that cultivates relevant skills which will contribute to global citizenship. Currently, schools in India prepare students to be effective task takers, but that alone will not prepare them to thrive in this rapidly changing world. Emphasising test scores above all else not only puts great pressure on children, it also fails to teach them critical skills like collaboration, communication and multi-level critical thinking. Doing well on a mathematical test does not adequately prepare a student for the challenges of real-life; rather to excel in the future, students must know how to apply mathematical concepts, not simply answer them.

Further, students need to develop skills. For instance, many of us who work in an office constantly work in teams. To be effective in a team, we all need to have strong collaboration and communication skills. But simply sitting in a classroom, listening to a teacher, memorising facts, and then taking an exam does not help students develop these essential skills. Education need to change and needs to cater to the changing world. Students must practice what they need to learn. Essential skills can not be learned by reading or talking about them—they must be practised.

Some schools in India are talking about developing 21st century skills in children, but these schools are definitely not advanced enough in my opinion. For instance, all the schools I visited in India still have closed classrooms where children are sitting and are listening to a teacher. But in work and career experiences, nobody sits in a closed room and listens to one person standing in front of the room. To really change education, India needs to build new schools from the ground up, where differentiated learning spaces replace these closed classrooms; where students work in groups on projects with the teacher acting as a guide rather than a content expert; and where school life and the life after school is bridged.

I believe every child is unique and that a school has the great responsibility in discovering this uniqueness. Sadly, most of India's schools don't even look at the child. Instead of starting with the child's passions and interests, schools start with the curriculum as the main point of view and hire teachers around that. The uniqueness of the child is completely forgotten. A child's learning goes so much deeper when s/he is challenged on his/her own passions and interest.

The picture is not all bleak, however. There are great schools in the world which are rewriting history by changing the way teaching and learning occur. Some of these forward-thinking schools have formed an international alliance, the "Global Schools' Alliance", to further the cause of changing schools and to share ideas, best practices, and data on effective teaching and learning.

To prepare India's future workforce, one that can compete with the world, the focus should not just be on educating people. The quality and kind of school education offered will make all the difference. India must build new schools from the ground up, led by people who have the right mindset, knowledge and skill-set, and who are passionate about changing education and are willing to learn from around the world. The change needs to start now, lest we deprive an entire generation of children great opportunities that await them.

Dr Steven Edwards is the co-founder of Vega Schools; he has helped create some of the most successful schools in the US and has advised the White House about change in education
starparents.org/dr-steven-edwards/

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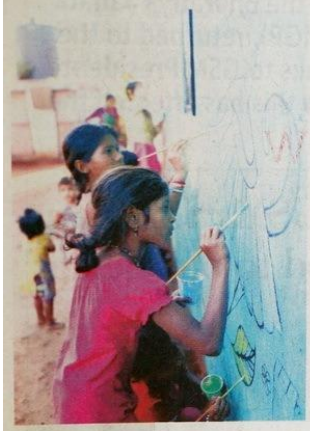
EDUCATION FOR CHILDREN: PROVIDING A BASIC NECESSITY IN THE SIMPLEST WAY

JUI DAMLE converses with Robert Lyon about his organisation Goa Outreach and why he chose to reach out through education



Education is the most powerful weapon which you can use to change the world.
– Nelson Mandela

Education is the passport to the future, for tomorrow belongs to those who prepare for it today.
– Malcolm X

That the importance of education cannot be undermined is quite evident from the words of these great men. With a literacy rate of around 90 percent, Goa is one of the leading states in India in terms of literacy. While this statistic is heartening, literacy is not an accurate indicator of the education of the population. Education is an all-encompassing term that includes literacy and competency to complete tasks and live in a society. At the basic level, it helps to improve one's life skills. Enough said about how education is the cornerstone of the quality of life.

The reality is strikingly different. According to World Bank statistics, the Indian government's 'Education for All' program has managed to bring nearly 20 million children into primary schools and the focus has now shifted to quality of education as well. However, children still form a significant portion of the workforce today, despite there being laws preventing child labour. Here are some hard hitting statistics (source: CRY, Census 2011) -

- Only 32 percent of children in India complete their school education
- More than 30 million children between the ages of 5 and 18 are engaged in labour.

There is a lot more work to be accomplished in terms of access to education in India. However, even a small start somewhere goes a long way. And a prime example is the work done by Robert Lyon and his organisation, Goa Outreach.

Robert came to Goa with a friend to volunteer at an NGO for children over 12-13 years ago. Much like many of us, he fell in love with the State and decided to stay on. But he also decided to make a difference. Robert's organisation, Goa Outreach, started about three years ago, is based in Mapusa. Goa Outreach aims to help local disadvantaged children from the area, mostly slum and street children with their education. The work is especially challenging since a large number of children don't belong to the State and have migrated to Goa with their parents who came here in search of work.

Goa Outreach presently helps over 100 children in school enrolment. Children are provided with school bags, stationery, books etc to ensure that they are ready for the school like any other child would be. What Robert realised over the last few years was that just providing the school material was not enough. Health and hygiene was a major concern for the slum dwelling children. The organisation also supports with medical issues and encouraging good hygiene. Robert provides the children enrolled with him with soaps, shampoos, toothpaste etc. This ensures they stay in school and are not bogged down by health issues.

Robert's home in Mapusa also provides a haven for the older children in the program to sit down peacefully and prepare for their exams. Funds for the organization are raised through individual donors and friends as well as the three young and energetic trustees of Goa Outreach, Ishita Godinho, Rhys De Souza and Rahul Faria. There was also a successful marathon organised last year to raise funds for the charity.

The emphasis is on bringing these children into the mainstream as much as possible. For instance, when he found a BMX bicycle for sale last year, Robert purchased it and now the children get to take turns using the bike. Each month the bike is given to a new group of children to 'share' and take home, one child is put in charge and then that child allows the other children to use it. There are several other such projects when the funds permit. There's also grocery distribution to the families during Diwali or gifts for Christmas. Engaging the parents in the program is equally important. And as Robert points out, it's a tough task as well since most parents are not educated either.

It's deeply satisfying to watch the children choosing their school bag or compass box for the next year at school. It's not about the materials but the impetus they provide the child to look forward to school and the learning that comes with it.

The impact of education is not just on the child but on the whole family as well. As Robert says, "These children will grow up and ensure their own children get a proper education as well. That is the domino effect required in the long run.

Vocational education in India

Dr Nazrul Haque

The impacts of globalization are clearly visible in different segments of our societies. The globalization has created a competitive environment in our societies where the quality of human resource is an important determinant of competitiveness. So the countries throughout the world are now focusing more on human resource development; it is considered as essential for the socio-economic development of a nation. The population with proper education and skill may be noted as a prerequisite for the overall development of a nation. When the workers of a country are skilled, the overall volume of production will go up, the cost of production will come down, and this will help the country to grow to a level required for competing in the international market. The rapid progress in the field of technology, finance, business, management, working practice, etc., in the last few decades has made it necessary for a properly planned and effectively implemented vocational education system that can quickly meet the emerging needs of different types of skill requirements.

India was far behind in innovating its vocational educational system in comparison to countries like Germany, Japan, Korea, etc., as they introduced vocational education at the school level since the 1970s. In India, the emphasis has been on general education, and vocational education was at the receiving end for the last so many decades. This policy of negligence towards the vocational education system has actually resulted in creating a large number of educated unemployed people in India. It is abundantly clear that without a sound vocational education policy, it may be very difficult for India to compete with the developed countries of the world as far as the quality of human resource is concerned. The vital role that can be played by an efficient vocational education system in the national development is now being realized by various developing countries of the world including India.

The present day education policy of a country has to think about creating human resource for meeting the challenges brought about by the technology-oriented globalized world. It is observed that educational policy makers and experts now emphasize more on developing programmes and policies with an objective of providing globalized vision on education. India's National Policy on Education (NPE), 1986, modified in 1992, elaborated the role of education while recognizing the fact that education has to develop the manpower for different levels of the economy. The NPE also highlighted the need for reorganizing vocational education system for systematic approach to the problems of enhancing employability and encouraging youths to opt for an alternative career instead of opting for a career of general type where one may not have any genuine interest or have very less employment opportunities.

The Indian Government has been working continuously for liberalizing its economy for the last two decades or so. In this respect, it has been a matter of utmost importance to modernize its vocational education system to meet the international standards. Many experts are of the opinion that vocational education should be designed in such a way that it becomes an integral part of our general education and it should be ensured that vocational skills are imparted as a part of education. International organizations such as the UNESCO and the ILO recognize that basic education should promote vocational skills for the benefit of not only for the individual but also for the society as a whole. The improved vocational skills, technical competencies and qualifications of its people will help in catering to the skill deficiencies in the labour market. In view of the emerging trend in vocational education and skill development, the Government of India has launched a number of schemes for upgrading the vocational education system as the quality and relevance of the vocational education system prevailing in our country cannot be overlooked any more. It is very important for a developing country like India that its vocational education system becomes well equipped and modern to educate and train its workforce.

> The National Skill Development Corporation (NSDC) has been set up under the Prime Minister's National Policy on Skills Development (NPSD) for providing skills training to 500 million people by the year 2022.

The vocational education system refers to a lower level of education and training that provide the basic knowledge and practical skills required for the population of skilled or semi-skilled employees in various trades working in industries or other work places. Vocational education and training (VET) programmes in India are provided by different types of institutions which come under different departments and ministries. At present, there are some 17 different ministries under the Government of India that are involved with providing VET programmes directly or indirectly.

The programmes conducted by the Industrial Training Institutes (ITI) and Industrial Training Centres (ITC) come under the purview of the Directorate General of Employment and Training (DGET) under the Ministry of Labour and Employment (MoLE). The National Council of Vocational Training (NCVT) performs the role of overseeing the curriculum and evaluation for vocational institutions under the MoLE. The DGET is the apex body at the national level for developing and coordinating the vocational education and skill development programmes. The DGET in recent times has introduced a framework for imparting modular skills known as 'Modular Employable Skills' for acquiring employable skills within short time duration of three to six months. Many industries/private firms/non-government organizations are now involved in vocational education and skill development activities by playing their roles as vocational training providers, trainers, certifying agencies, etc. Some more initiatives like developing a select group of ITIs as Centres of Excellence through the public-private partnership (PPP) mode, opening of new it is for offering modern vocational and relevant trades, upgrading of the existing institutions, etc., have been taken to meet the increasing demands for a vocationally-qualified skilled workforce.

The Ministry of Human Resource Development (MHRD) has recently launched the National Vocational Education Qualification Framework (NVEQF) covering schools, vocational and technical education institutions, colleges and universities for developing vocational skills and competencies of the population through short-term and job-oriented courses. The NVEQF is expected to bring changes in vocational education system of India by providing multiple pathways both within the vocational education and between general and vocational education by linking one level of learning to another higher level of learning. The National Skill Development Corporation (NSDC) has been set up under the Prime Minister's National Policy on Skills Development (NPSD) for providing skills training to 500 million people by the year 2022. The National Institute of Open Schooling (NIOS), an autonomous organization, has been mandated to conduct vocational education and training programmes through its study-cum-training centres using open and distance learning mode.

Positivity key to shape kids' behaviour

Times News Network

Kolkata: Many a time parents wonder why their children have become aggressive, or why they lack discipline. Irritated with frequent complaints from teachers, they often end up reprimanding or punishing their kids, instead of delving deep into the problem. But the right way to go about it is to help him/her develop social and emotional competency, it was unanimously decided at a workshop held at La Martiniere for Boys School.

TEACHERS' WORKSHOP

The workshop was attended by Jenny Mosley, known across the globe as the pioneer of quality circle-time model that helps children develop positive behaviour. Teachers from 17 schools in the city had a hands on training with Mosley.

Jenny Mosley with schoolkids at the workshop on Friday

"Corporal punishment of any norms of forced control do not work. Most effective punishment is withdrawal of privilege. And why not listen to the child? Help him/her develop social and emotional competency that would ultimately result in positive behaviour," Mosley said on Friday.

"Students like what their teacher likes. Herein lies the responsibility of teachers," Mosley told the teachers emphasising on understanding one's own behaviour as a condition to manage children's behaviour.

Quality circle-time model is being practiced in many schools in the UK and other countries. This technique is for promoting social and emotional learning in schools. Mosley even demonstrated how this circle is worked out by interacting with a group of Class III students sitting in a circle. Skill to listen, speak, observe and concentrate was brought out of the children by making them participate in the interaction.

"Over the years, children in general have become very aggressive. Emotional well-being plays a very important role in bringing a positive attitude in them. It has been our endeavour to help any disturbed student by talking and counseling. This workshop will enhance our efforts further in dealing with students," said S Chowdhury, special needs teacher at La Matiniere for Boys.

ALTERNATIVE EDUCATION

Why India needs alternative schooling

As far back as 1978, non-formal education was proposed in India. It was seen as one way to meet the needs of children who are unable to go to formal schools because they have to work for a living or look after the home and younger siblings. But why has the concept failed to take off?

By Shushmita Dutt

The assumptions at the beginning of India's struggle for achieving Universalisation of Elementary Education (UEE) were that universal elementary education wasn't possible because there weren't enough schools. These assumptions, however, were soon questioned by educationists, because they did not take into account the socio-economic realities of the country. It was not long before it became clear that the question of enrolment in schools was not merely a question of supply of schools. In spite of the manifold growth of the formal school network in the post-Independence era, it has not been possible to draw all eligible children in the age group of 6-14 into school, nor even to retain all those who were initially enrolled.

The reality in many Indian families is that children work in the fields with their parents, babysit younger siblings so that mothers can work for wages, take on other household responsibilities or themselves work for wages. The educational system had to take this reality into account. The system of Non-formal Education (NFE) was conceived in 1978 to meet the requirements of those children who were unable to attend formal schools. The process was meant to be part of a micro-planning strategy, to reach out to every family and every child, and involve them in the process of education.

The ground realities, however, have proved that without absolute commitment and large-scale human resource input, the very characteristics which should have made NFE attractive have worked against it — flexibility, localisation and need-specific strategies have often been used as loopholes to offer sub-standard education.

Today it is becoming increasingly clear that the Indian educational system requires more than just an expansion of the school system and an inclusion of the NFE system if it is to be set right. It is also being accepted that without a parallel growth in economic activity and rise of other social development indicators, the true benefits of education will not reach the masses. Gradual disillusionment with the existing educational conditions has given rise to a concern that the very educational paradigm accepted by India may be unsuited to a large majority of its people. In an attempt to tailor the delivery system and content to the specific needs of various sections, there have been some small-scale experiments with educational structures, curricula, teaching strategies, teacher training, evaluation and certification, the teaching calendar and management.

The term 'Alternative School' is finding its way into the educational lexicon and beginning to gain respectability. The exact connotation of the term does not seem to have been frozen yet, and attempts are still on to find an educational paradigm which may be satisfactorily pigeon-holed under 'Alternative School'. The NCERT concept paper on NFE and Alternative Schools (AS) defines AS as a system which has a delivery mechanism distinct from formal schools and NFE. It has been conceived as transacting the same curriculum and textual material as in the formal system but outside the structure. But the concept paper seems to further indicate that it is essentially the degree of flexibility in curriculum design and teaching-learning approach that makes the difference between the formal and the AS. The paper goes on to identify the Open School and Shiksha Karmi schools as examples of AS.

Some educationists struggling to explain what is meant by alternative schools have pointed to it being more economical in that it may be situated in places and for numbers where it is not feasible to have a formal school. (Then is it a NFE centre under another name?) Others claim that alternative schools have the qualities of being child-friendly and attractive. (What! Isn't the ultimate aim of a formal school the same?)

As is evident, the exact connotation of the term is yet to emerge. Or perhaps it is one of those chameleon terms which mean many things to many men.

The need for alternative schools

There still remain some fundamental questions that must be clarified with regard to alternative schools. The first of which is: why do we need them?

In answer to that question it may be said that there is a large component of children who have not found the education presently on offer to be sufficiently meaningful. A study undertaken by Mode for UNICEF in five states of India as recently as 1995 indicates that the vast majority of students attending formal government schools, their parents, as well as students who have dropped out and their parents, seem to hold unfavourable impressions of school. The same study records that the majority of SC/ST students and parents feel that only rich or high-caste families benefit from education. The perceived value of education among children who have never enrolled and their parents is also very low.

Prof Yashpal in the National Advisory Committee Report 1992 *(Learning Without Burden)* has commented upon those who refused to compromise with non-comprehensibility and preferred to drop out rather than submit to years of rote learning without understanding. Some interesting information is available from the National Sample Survey, 1986-87, regarding non-enrolment and drop-outs. Nearly 30 per cent of those

ALTERNATIVE EDUCATION

The ideal alternative schoolteacher needs to be far more resourceful and innovative than the teacher in a formal school He should be able to draw upon the local myths, legends, ethno-medicine, history and heroes and relate the curriculum to local environmental and socio-economic needs, hopes and aspirations.

surveyed, both in the rural and urban areas, gave the reason for non-enrolment as 'Not Interested'. A larger portion of the never- enrolled females gave this answer than did the males — 33.3 per cent as against 26.5 per cent. This could be interpreted as a demand-side constraint to enrolment.

However, some scholars have dug deeper and interpreted it as a supply-side constraint rooted in poor schooling facilities (water, separate toilets) and quality of education (curriculum content, essential learning). This point becomes more relevant when it is considered that relevant curriculum content should motivate students to complete their education and utilise their schooling to better their quality of life. In the same survey, 16.3 per cent of rural and 20.3 per cent of urban dropouts cited 'Failure to Pass Exams' as reasons for dropping out. Again, it would have to be clarified whether this is a demand-side constraint or a supply-side constraint because of irrelevance of curriculum content and poor quality of education or both.

Then there is the question of the curriculum for alternative schools: the need or otherwise for a desegregated, contextual and section-specific curriculum. Whereas some argue strongly for a curriculum that answers specific needs and is relevant to their lives, others see this as a perpetuation of social division. While the effects of the first suggestions might become visible immediately in higher enrolments and retention, the effects of the latter might be evident in the longer term when corrective measures will be too late. Alternative schools would need to consider the above issues very carefully.

The perfect AS teacher

Those who hold a brief for AS argue that the formal system is monolithic and mass-oriented, incapable of recognising individual needs and small but important differences between individuals. Formal schools are part of an enormous whole; in order to exist they have to adopt common curricula and instructional materials. Even the pool of teachers must be clones as far as possible, interchangeable and inter-transfer able, with approximately the same qualifications and training. Wittingly or not, the result is a homogenisation of a heterogeneous, diverse population.

AS hopes to be responsive enough to desegregated needs, and provide the kind of schooling that children from various sub-sections of society (presently out of school) may relate to. The ideal AS teacher, even if less academically qualified than the formal school teacher (as in some AS experiments currently under way), would need to be far more resourceful and innovative while clearly keeping the goal of AS in mind if he/she is to be successful. He/she should be able to draw upon the local culture (myths, legends, ethno-medicine, history, heroes) in the course of teaching and relate the curriculum to local environmental and socio-economic needs, hopes and aspirations. Such a teacher would almost certainly need to be local.

The question of control and certification

The extent of decentralisation indicated by the above expectation would argue for individual, evolving systems covering perhaps one agro-climatic or cultural zone. They may be local, specific systems built upon a single prototype. Or they may be absolutely individual systems loosely connected to other such systems. When considering any individualistic system it becomes the responsibility of the planners to ensure that individuals within one system do not lose their ability to reach out to another. The importance of cross-fertilisation of ideas and innovations depends on this. And so does the ability to access information, technology and even financial support from the mainstream.

Finally, the AS student has the right to expect that his/her education will be recognized by other parallel systems of education and allow the option of continuing education in such other systems. The question of a recognized form of certification, therefore, becomes important.

After AS, what?

So far there has been little serious thought given to adopting AS beyond the elementary level. Is it the aim of alternative schools to facilitate children who have dropped out or never been to school to make up for lost time and join the mainstream at some point? Or does it advocate that AS students accept elementary schooling as sufficient for their

needs? Or again, does the alternative system of education intend to provide alternatives to all levels of education? The entire issue of evaluation and certification is intertwined with this and would need to be sorted out. If alternative schooling is ultimately going to keep the option of mainstreaming open for its students, it will perforce have to toe some formal school lines. The question then is, how much and which ones?

Emerging issues of concern

With any innovation or experiment there are certain legitimate concerns which require thought. Some of these are:

- Does AS fulfil its requirement of attracting previously non-enrolled children?
- How does the quality of education compare with what is available in formal schools?
- Does AS offer anything not available in formal schools? Motivation, interest, joy in learning, greater confidence, leadership training, environmental awareness, a sense of responsibility towards the community, ownership?
- What level of acceptability does AS have vis-a-vis employment, higher education and mainstreaming? How acceptable is the AS certification in other districts, other states?
- Are AS structures sustainable? Can they be replicated?
- Is the system of evaluation of pupil attainment effective?
- Does the low academic qualification of AS teachers affect pupil attainment and quality of teaching?
- Does the community continue to support and sustain AS in the long run? Does AS meet community aspirations?

Other areas that need in-depth, longitudinal study are:

- The coverage and access of the AS network: can AS reach all/some/most of the unreached?
- The management structures and processes of AS: are these efficient, sustainable, vibrant, able to change as per need?
- Profile of the target population: what socio-economic, cultural, educational backgrounds do the students and parents come from?
- The perception of the target population about AS, its value, its ability to fulfil their aspirations.
- The participation and ownership/involvement of the community with the scheme, its planning and functioning.
- The teacher profile and training: how does it answer AS needs?
- The teachers' and other officials' perception of AS functioning.
- The budgetary aspect and unit cost per child per se as well as compared with other systems.
- The curriculum and instructional materials.
- The AS calendar
- The retention and dropout rates of students
- The profile of out-of-school children in the catchment area of the AS
- Causal factors for non-enrolment of above group
- The classroom processes and transactions
- The learning achievement of the students. A detailed study and review of some presently ongoing experiments on evolving alternative systems of education is of crucial importance at this juncture in India's attempt to meet the goals of UEE. Many of the questions posed above would perhaps be resolved. Answers to all questions may not be available from one experiment — it is more than possible that findings from a number of such small-scale experiments will need to be collated for a meaningful learning experience to take place.

One such experiment, the Shiksha Karmi Schools under Lok Jumbish in Rajasthan, which has been ongoing for some years now has already been studied and evaluated at great length. Some subsequent experiments have also drawn upon the experience gathered there. It is now required that other experiments (AS under District Primary Education Programme or DPEP may be studied in-depth as there has been substantial progress in implementing AS) be documented in the same manner so that an eventual sharing may take place.

It would be interesting to see how the existing AS systems ultimately resolve such problems as certification and evaluation. These experiments will also provide important insights into problems that might occur with regard to the functioning and sustainability of a comparatively large network.

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Shushmita Dutt is a Bhopal-based writer.

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THE TIMES OF INDIA

Panchgani & Mahabaleshwar get new, improved eco-shield

TNN | Aug 27, 2015, 03.11 AM IST

MUMBAI: Ten years after it sought objections and suggestions on the regional development plan for the Mahabaleshwar-Panchgani eco-sensitive zone (MPESZ), the state government has finally approved it. It will come into force three months from now.

After a sustained campaign by the Bombay Environmental Action Group (BEAG), the popular tourist getaway was declared an eco-sensitive zone in 2001. In 2005, the draft regional plan prepared under the supervision of a High Level Monitoring Committee (HLMC) appointed by the Bombay high court was published.

"The entire credit for a sensible regional plan for the MPESZ should be given to the HLMC. The plan should have been approved in two years but has taken 10," said Navroz Mody of the BEAG.

A key feature of the plan is that all villages in the area have been declared eco villages, instead of only two villages in 40 hectares earlier. A reservation of 200 hectares for hotels and resorts has been deleted. Bed and breakfast schemes will be implemented to promote tourism. To ensure locals benefit, residents are allowed to let out two rooms not less than 150 sq feet to tourists. Heritage houses can be converted into heritage resorts or hotels. There will be no elaborate infrastructure in gaothans, only simple hygiene facilities. The polo ground and golf course to be maintained as open spaces.

The regional plan has banned all entertainment activities that are not consistent with eco-sensitivity. Activities such as go-kart tracks, amusement parks, water parks, helipads (except for emergency) and ropeways (except for public purpose) will not be permitted.

Mody rued certain lacunae in the approved plan. The MPESZ is the place of origin of five rivers and a major watershed of the Western Ghats, but the much of the plan seems to be paying lip service to the Supreme Court and Bombay HC orders to protect the fragile environment.

Though the ESZ notification stipulates that the tourism master plan shall form a component of the zonal master plan, it is still not ready. Though more than 60% of the ESZ belongs to the forest department, there are no special working plans for protection of forest; the general plans of the Satara district forest plans are to be implemented, Mody added.

Learning spaces: Moving past tradition

SHORT ARTICLES

Jo Earp (/authors/jo-earp) 26 June 2014

Research into highly effective schools has consistently highlighted the importance of effective teaching methods.

Introducing new teaching methods can often be the catalyst for another change - this time in the physical learning environment.

When New South Wales principal Natalie Mansour trialled project-based learning (PBL) in her school, she soon realised the 'traditional' classroom layout needed a revamp.

Mansour, Principal of Mount Pritchard East Public School, says the focus on 21st Century learning skills was prompted by a visit to neighbouring Merrylands East Public School 12 months ago.

'I came back so inspired and talking about what was going on over there. We were looking for a channel to work out how we could address the 4Cs [of communication, critical thinking, collaboration and creativity] and went down the path of PBL,' she recalls.

'We trialled it in our Stage 3 classes initially in Semester 2 last year and did our own mini action research - the results were fantastic. [But] our learning spaces weren't conducive to what we were trying to achieve with the 4Cs.'

Teachers were routinely dragging whiteboard tables outside so students could spread out. 'The learning space has ... to suit the pedagogy,' Mansour says. 'So, we started investigating alternatives.'

The principal asked staff to 'do the research' and come back with a plan. 'It was never me standing at the front telling teachers 'you must do that' ... I gave them a budget each and said you have up to this amount ... for whatever you feel will work in your classrooms.'

In the first room redesign, half of the tables were removed and low teacher chairs, stools and beanbags were brought in. Stage 3 students were also asked to design another learning space as part of their project work.

'I had a look at all their plans and took out some common themes. It's a double classroom and somewhere teachers can now book in and take their kids,' Mansour says. Junior and senior students are also using the space to run joint SOLE (Self Organised Learning Environment) sessions.

One of the new furniture elements introduced to help collaboration and brainstorming, among both staff and students, is whiteboard tables. Mansour found the more expensive versions would cost several hundred dollars, so she explored a cheaper alternative - whiteboard paint costing $30 a can.

'We don't have that sort of money to be spending $400 on a table. The can [of Dry Erase Paint] does seven tables, so it was a discovery! We've started painting tables in all the classes ... as an option for brainstorming.'

Teachers at the school collect data on student progress every five weeks and use it to inform their fortnightly collaborative professional learning sessions and planning. Analysis of the PBL trial shows children are progressing in their learning.

Mansour says further analysis is needed to determine if it's the learning space or teaching method, or a mix of both, that's making the difference.

'We do obviously have to monitor it and make sure it's still catering for the needs but, at the moment, it's engaging our students in learning in a way that we probably haven't seen in the past.'

INFERENCES

Are your learning spaces suited to your teaching approach?

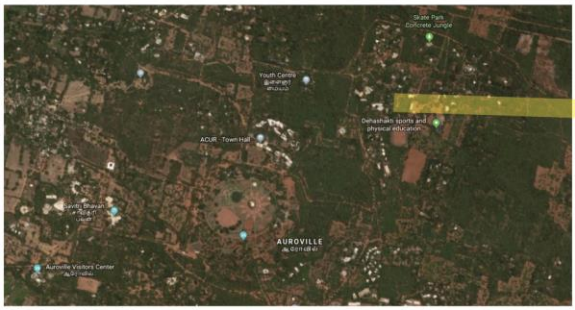
Has your school used action research to identify changes needed in your learning spaces?

Are you redesiging your learning spaces - what teaching and learning outcomes do you want to achieve?

2.2.2 CASE STUDIES

The Last school, Auroville (CASE STUDY -1)

PLANNING OF SPACES
TEACHING PATTERN -ALTERNATIVE



C1 Map No:01
LOCATION MAP

C1 Map No:02
NEIGHBOURHOOD MAP

LAST SCHOOL, AUROVILLE, BOMMAYAPALAYAM, TAMIL NADU

- ARCHITECTS: DAVID NIGHTINGALE & GANESH BALA
- MIDDLE/HIGH SCHOOL
- AGE GROUP : 14 YEARS AND ABOVE
- TIMING : 8:00-3:15 (3:15-5:30 SPORTS)
- WORKING DAYS: MONDAY TO FRIDAY

HISTORY..

- LAST SCHOOL IS LOCATED NEAR ASPIRATION COMMUNITY.
- THE VERY FIRST AUROVILLE'SCHOOL' CAME INTO BEING ON THE LAST SCHOOL CAMPUS IN 1970-71.
- IT WAS SHUT DOWN BECAUSE OF THE POLITICAL REASONS.
- AFTER ALMOST A DECADE IN 1985 IT WAS REOPEND FOR AUROVILLES YOUNG ADULTS AND TEENAGERS.

THOUGHT:

THE ART CENTRE AND THE CLASSROOM HAVE THEIR OWN DISTINCTIVE AREAS, PIVOTING AROUND A TWO STOREY CYLINDRICAL BLOCK DESIGNED TO HOUSE MEETING AND QUIET SPACES AT THE HEART OF THE PLAN. THE ART CENTRE COMPRISES FOUR INTERLOCKED SPACES WHERE ART , SCULPTURE AND CRAFT ARE TAUGHT AND THE CENTRAL ZONE OF THE CLASSROOM IS HAS BEEN DESIGNED TO EXHIBIT THE ARTWORK OF THE STUDENTS .

A WATER BODY SURROUNDS THE CLASSROOM BLOCK AND IT IS AN EXPERIMENT TO SEE IF THE LEVEL CAN BE MINTAINED THROUGH THE COMBINATION OF RECYCLED GREY WATER AND THE RAINWATER FROM THE ROOFS.

ECONOMY

FUNDED BY:

SAIIER (SRI AUROBINDO INTERNATIONAL INSTITUTE OF EDUCATION RESEARCH, AUROVILLE.

EDUCATIONAL METHOD..

STUDENTS DEVELOPMENT:

- STUDENTS MIND
- WILL POWER
- THE REFINEMENT OF THE AESTHETIC AND EMOTIONAL BEING
- BUILD ALL OF THE ABOVE POINTS UPON A STRONG AND BALANCED PHYSICAL BEING.

TEACHERS TASK:

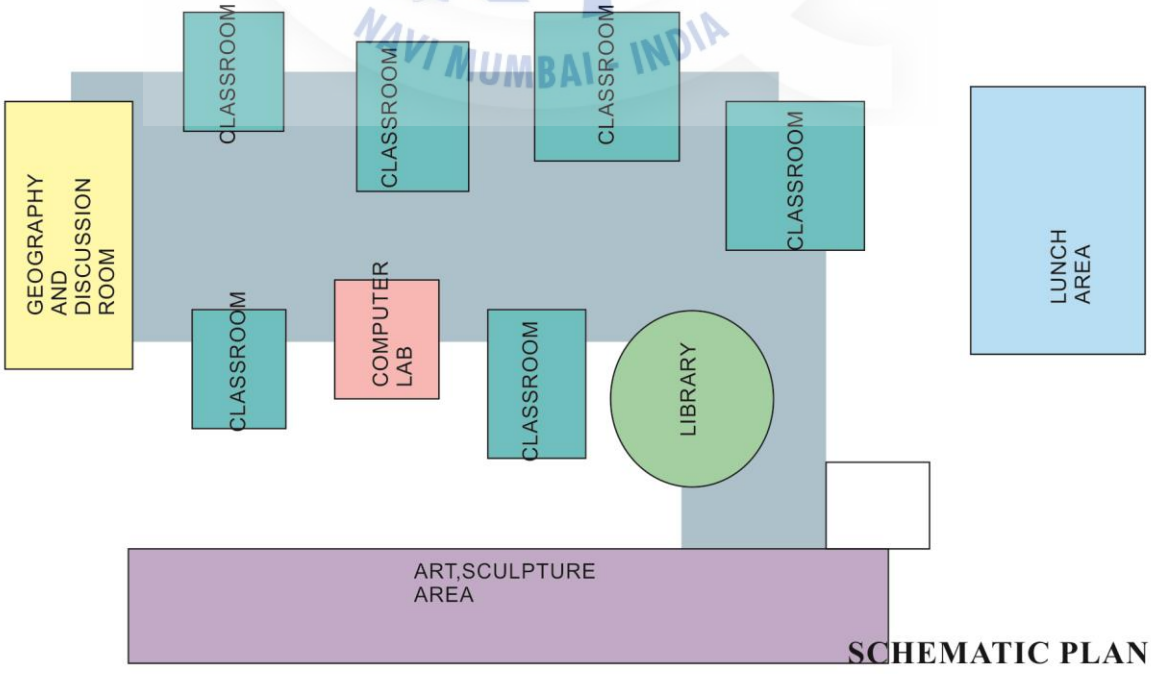
- TO SUGGEST
- NOT TO IMPOSE ON THE STUDENTS
- BROAD PROCESS OF CONSULTATION FROM TEACHERS.

THE ACTIVITIES ARE WORKED OUT FRO EACH STUDENT INDIVIDUALLY WITH THE CHOICE OF THE SUBJECTS AND TEACHERS.

STUDENT WISH TO LEARN SOMETHING SPECIFIC OR GET INVOLVED IN COMMUNITY OF AUROVILLE, SPECIAL ARRANGEMENTS ARE MADE.

STUDENTS ARE ALLOWED TOS ET UP GOALS FOR THEMSELVES IN STARTING OF THE YEAR AND TEACHERS HELP THEM IN ACHIEVING THESE GOALS.

A LOT OF CLASSES USES THE IDEAS OF MOTHER AND SRI AUROBINDO, ACCORDING TO LEVEL OF INTEREST.



SCHEMATIC PLAN

SUBJECTS:

- LITERATURE AND POETRY
- THE PURE SCIENCES
- MATHEMATICS
- HISTORY
- GEOGRAPHY
- ECONOMICS
- PHILOSOPHY
- THE ARTS: SCULPTURE , CRAFT AND ART .

(EXHIBITION SPACE)

C1 Figure No:01

AFTER WALKING A DISTANCE OF 100MTRS FROM THE MAIN GATE AND NAME BOARD THIS IS THE FIRST VISTA WE GET. TOTALLY HIDDEN IN THE NATURE.

FUNCTIONS AND SPACES

C1 Figure No:02

SPACE BETWEEN TWO CLASSROOM BLOCKS.

C1 Figure No:03

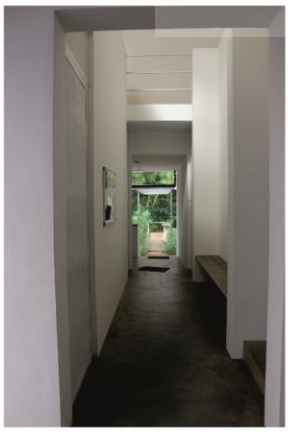
FRAME OF CONCRETE ,PLASTERED WALL AND LANDSCAPE

C1 Figure No:04

PERGOLA BETWEEN ART SPACE AND CLASSROOMS

C1 Figure No:05

ENTRANCE-TRANSITION BETWEEN CLASSROOMS AND ART SPACE



C1 Figure no.06

PASSAGE TOWARDS BACKYARD VIA STAIRWELL

C1 Figure no.07

A VOID BETWEEN TWO CLASSROOMS

C1 Figure No:08

ART SPACE , ENTRANCE AND CYLINDRICAL TWO STOREY STRUCTURE

C1 Figure No:09

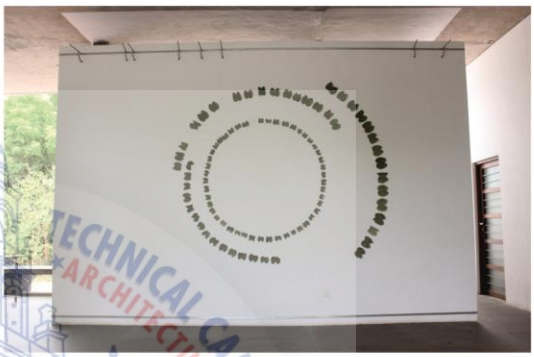
ENTRANCE TO STRUCTURE FROM PARKING AREA

C1 Figure No:10

DISCUSSION AND GEOGROPHY ROOM

C1 Figure No:11

SEATING SPACE OUTSIDE EVERY CLASSROOM



C1 Figure No:12
INSTALLATION ON ALL INTERIOR WALLS - STRINGS FOR EXIBHITS

C1 Figure No:13
INSTALLATION ON ALL INTERIOR WALLS FACING CORRIDOR AND STRINGS FOR EXIBHITS

C1 Figure No:14
INSTALLATION ON ALL INTERIOR WALLS FACING CORRIDOR.

SWOT ANALYSIS.

STRENGTH:
- CONNECTIVITY OF SPACES.
- TRANSITION BETWEEN TWO SPACES.
- CROSS VENTILATION AND LIGHT
-

WEAKNESS:
- CONCRETE CERTIFICATE IS NOT ISSUED AS PER THE RULES.

OPPORTUNITIES:
CREATING SUCH SPACES FOR SOME PHYSICAL ACTIVITES AS WELL

THREATS:
- SPECIFIC BOUNDARY AROUND THE CAMPUS WRT TO NEAR BY FOREST.

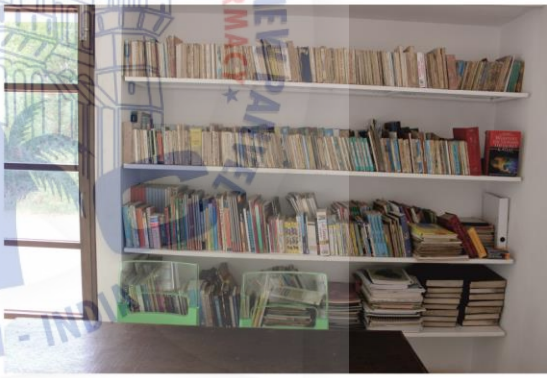
C1 Figure No:15
DISCUSSION AND GEOGROPHY ROOM

C1 Figure No:16
LUNCH AREA -PERGOLA

C1 Figure No:17
SEATING SPACE -CONCRETE- AND POCKETS FORMED BETWEEN SPACES

C1 Figure No:18
WATERBODY AROUND CLASSROOM FLOATING EFFECT.

C1 Figure No:19
MATHS CLASSROOM WITH CAPACITY OF 6-8 STUDENTS



C1 Figure No:20
LITERATURE ROOM

INFERENCES:

- THE SPACES ARE WELL PLACED.
- THERE IS NO HINDERENCE BETWEEN THE SPACE AND NATURE.
- NATURE IS EASILY ACCESSIBLE FROM ALL SPACES HAVING MULTIPLE DOORS.
- THE CONCEPT OF STEREOTYPICAL CLASSROOM INSIDE 4 WALLS IS JUST CHANGED BY GIVING MULTIPLE OPENINGS
- GIVING BUFFER ZONES BETWEEN TWO CLASSROOMS.
- SUCH PLANNING CAN BE ACHIEVED IN VARIOUS PLATFORMS AND DIFFERENT CONTEXT TOO.
- TRANSPARENCY OF FUNCTIONS.

Nandanam Kindergarten, Auroville(CASE STUDY -2)

C2 Map No:01
LOCATION MAP

C2 Map No:02
NEIGHBOURHOOD MAP

NANDANAM KINDGARTEN, AUROVILLE, BOMMAYAPALAYAM, TAMIL NADU.

- PATH ARCHITECTS AND PLANNERS
- KINDERGARTEN
- AGE GROUP : 3YEARS TO 6 YEARS
- TIMING : 8:00-3:15 (3:15-5:30 SPORTS)
- WORKING DAYS: MONDAY TO FRIDAY

HISTORY..

- THE CAMPUS WAS COMPLETED IN DIFERENT PHASES 2006, 2009 AND 2013.
- NANDANAM KINDERGARTEN IN LOCATED IN CENTREFIELD AREA IN AUROVILLE.
- BUILT UP AREA OF THE CAMPUS IS 570 SQ.M
- WITH KINDERGARTEN THERE ALSO A CRECHE IN SAME CAMPUS AREA.

C2 Figure No:01

PANORAMIC VIEW

COLORED COLUMNS AND CORRIDOR WITH ORGANIC FORM STEPS OPENING IN CENTRAL PLAY AREA. CENTRAL PLAY AREA HAS A BIG TREE FOLLOWING THE OLD CONCEPT OF GURUKUL TEACHINGS: UNDER A TREE.

ECONOMY

FUNDED BY:

SAIIER (SRI AUROBINDO INTERNATIONAL INSTITUTE OF EDUCATION RESEARCH, AUROVILLE.

EDUCATIONAL METHOD..

BASIC CONCEPTS FOLLOWED IN NANDANAM SCHOOL

- "FIRST PRINCIPLE OF TRUE TEACHING IS THAT NOTHING CAN BE TAUGHT".
- "THE TEACHER IS THE NOT THE INSTRUCTOR OR A TASK MASTER BUT A HELPER AND A GUIDE"
- FOCUSED ON THE INTEGRAL DEVELOPMENT OF THE CHILDREN FOCUSING ON THEIR PHYSICAL, MENTAL, VITAL AND PSYCHIC DEVELOPMENT, FOLLOWING THE GUIDELINES GIVEN BY THE MOTHER AND SRI AUROBINDO.

- WORKING MORE ON PROJECTS AS IT IS VERY EFFECTIVE AND HOLISTIC TOOL .
- CHILDREN SHOULD HAVE THE FREEDOM TO EXPLORE THINGS AROUND THEM AND GROW AT THEIR OWN PACE AND IN THEIR OWN WAY.
- DIFFERENT ACTIVITY BASED PLANS ARE MADE FOR CHILDREN
- GROUP ACTIVITIES WHERE THEY LEARN TO COORDINATE AND DEVELOP SOCIAL QUALITIES.
- INDIVIDUAL ACTIVITES WHERE THEY HAVE FREEDOM TO DO THINGS IN THEIR OWN WAY.

WORKING:

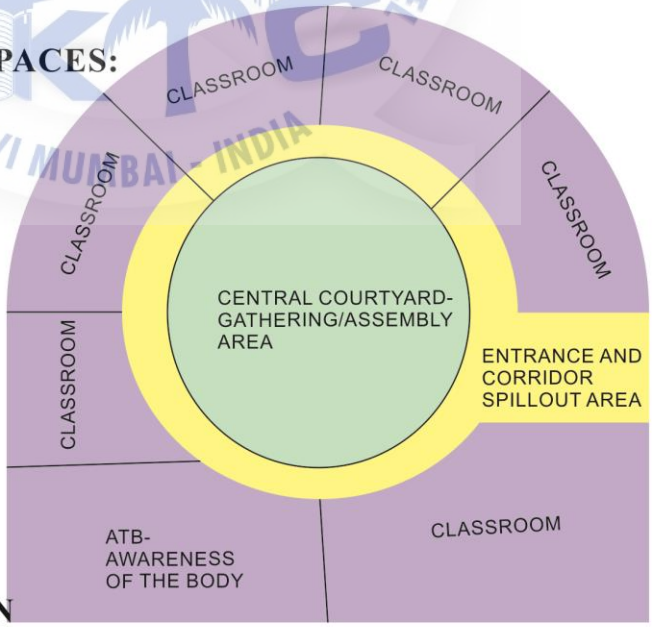
- CLASSROOM BASED ACTIVITES
- CENTRE BASED ACTIVITES.

- CHILDREN WORK WITH THEIR OWN AGE GROUP IN THEIR CLASSROOMS .

PART OF THE TIME THEY WORK WITH MIXED AGE GROUP IN ACTIVITY CORNERS.

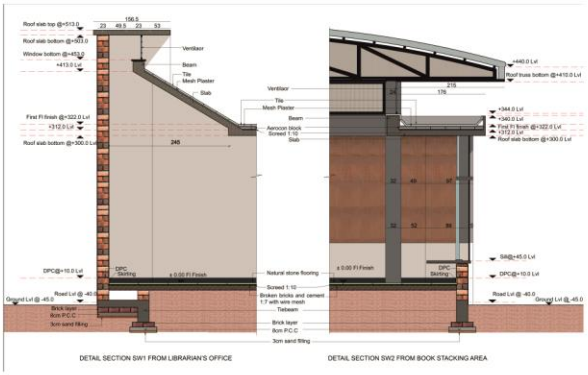
EXTRA CURRICULAR SPACES:

- CRAFT CENTER
- DRAMA CENTER
- BLOCK CENTER
- SCIENCE CENTER
- COOKING
- GARDENING CENTER
- QUIET ROOM
- READING CORNER
- GAMES CORNER.



SCHEMATIC PLAN

C2 Figure No:02
FILLER SLAB TECHNIQUE USED IN PLAY ROOM .



C2 Figure No:03
CONSTRUCTION DETAIL

C2 Figure No:04
FILLER SLAB TECHNIQUE USED IN ATB ROOM .

C2 Figure No:05
TERRACOTTA TILES AND HOLLOW TERRACOTTA TILES JOINED TOGETHER TO FORM A CURVE FORM WITH STEEL TRUSS.

C2 Figure No:06
LUNCH AREA FOR STUDENTS WITH ATTACHED KITCHEN-FOOD IS PREPARED IN KINDERGARTEN ITSELF.

C2 Figure No:07
SLIT IN ROOF FOR NATURAL LIGHT AND VENTILATION

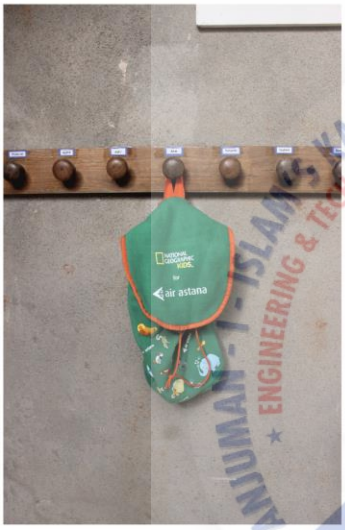
THOUGHT:

THE SPACES ARE ZONED IN SUCH A WAY THAT A CENTRAL PLAY AREA WHICH USED FOR MULTIPLE ACTIVITES LIKE ASSEMBLY AREA, ETC. WITH THE CIRCULAR CENTRAL AREA THERE IS AN OFFSET THAT CREATES CORRIDOR WHERE TEMPORARY ACTIVITIES ARE PLACED LIKE READING CORNER, GAMES CORNER, ETC
ON THE OUTER ZONE AFTER THE CORRIDOR CLASSROOMS ARE PLACED IN SUCH WAY THAT THEIR OPENINGS ARE ON BOTH ,TOWARDS THE CENTRAL AREA PLAY GROUND AND OUTWARDS.
IN ALL THESE SPACES IT CREATES MORE INTERACTIVE SPACES WITH MORE TRANSPARENCY TO NATURE .

C2 Figure No:08
ATB- AWARENESS THROUGH BODY-AREA

C2 Figure No:09
JUNGLE GYM ACTIVITY ZONE

C2 Figure No:10
QUIET ROOM-OPEN FROM TWO SIDES.



C2 Figure No:11
BAG HANGER WITH STUDENTS NAME- SELF USED BY STUDENTS

C2 Figure No:12
TOY STORE AREA- SELF USED BY STUDENTS

C2 Figure No:13
WASHROOM FOR STUDENTS.

SWOT ANALYSIS.

STRENGTH:
- CONNECTIVITY OF SPACES.
- INNOVATIVE INTEGRAL LEARNING.
- STRUCTURE W.R.T TO CONTEXT

WEAKNESS:
- LIMITED INTAKE OF STUDENTS.

OPPORTUNITIES:
- PRIMARY AND SECONDAR SECTION CAN ALSO BE STARTEWD WITH SAME CONCEPT OF TEACHING

THREATS:
- SPECIFIC BOUNDARY AROUND THE CAMPUS WRT TO NEAR BY FOREST.

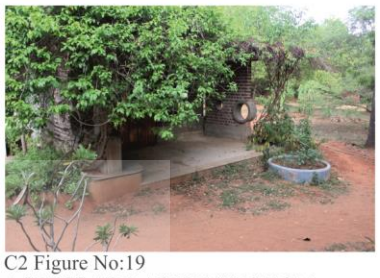
C2 Figure No:14
ORGANIC FORMED CORRIDOR BETWEEN CLASSROOMS AND PLAY AREA

C2 Figure No:15
OPEN AREA IN CENTRE-ASSEMBLY AREA AND PLAY AREA

C2 Figure No:16
ORGANIC FORMED CORRIDOR BETWEEN CLASSROOMS AND PLAY AREA- STEPS

C2 Figure No:17
TRANSITION AREA BETWEEN TWO SPACES-LUNCH ZONE AND TOY AREA

C2 Figure No:18
TRANSITION AREA BETWEEN TWO SPACES-WASHBASIN AREA AND KITCHEN CLEANING AREA



C2 Figure No:19
ACCESS TO BACKYARD FROM MATHS ROOM

C2 Figure No:20
CLASSROOMS 1

C2 Figure No:22
CLASSROOMS 2

C2 Figure No:23
CLASSROOMS 3

INFERENCES:

- THE KINDERGARTEN ITSELF PLAYS AN IMPORTANT ROLE AS THE BASICS STARTS FROM THERE ITSELF.
- SPACE DO AFFECT THE INTERACTION AND CONNECTIVITY WHICH IS A POSITIVE POINT IN THIS KINDERGARTEN.
- MIXING OF STUDENTS AND INDIVIDUAL ATTENTION BOTH IS ACHIEVED WITH SUCH TRANSPARENCY.
- SCALE OF THE FURNITURE THE SPACE IS TOTALLY ON STUDENTS SCALE AS IT SHOULD BE IN THEIR OWN REACH.
- WHICH CAN LEAD TO RESPONSIBILITY IN STUDENTS.
- NATURAL LIGHT AND VENTILATION IS ACHIEVED WELL IN THIS PLANNING AND VERNACULAR TECHNIQUES USED .

C2 Figure No:24
WASHING AREA FOR STUDENTS-CLEANING THEMSELVES AFTER PLAYING IN MUD- SCALE CHANGES

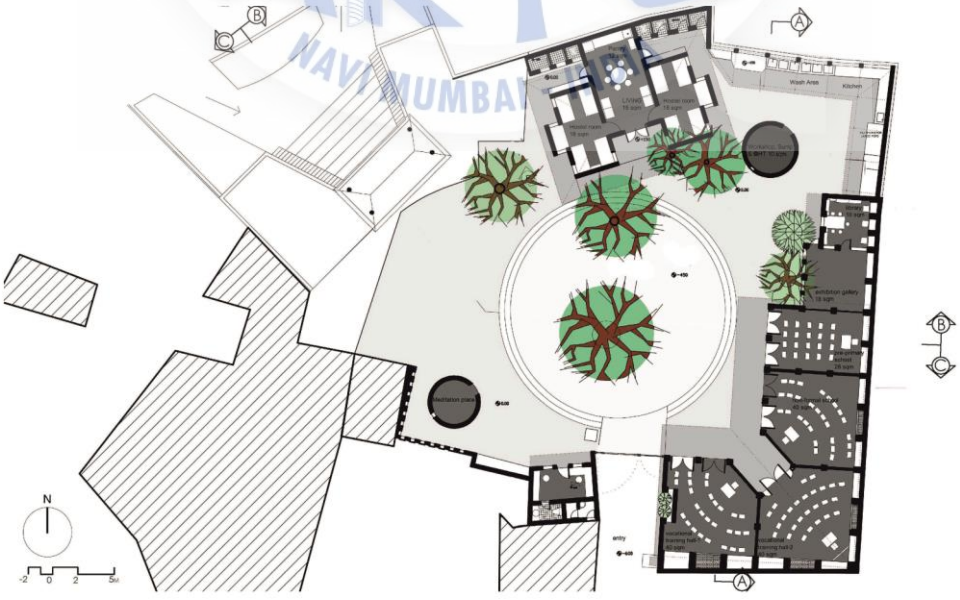
Manav Sadhna Activity Centre, Ahemdabad(CASE STUDY -3)

SPATIAL ARRANGEMENT
COMMUNITY SPACE
BEST OUT OF WASTE

C3 Figure No:01
VIEW

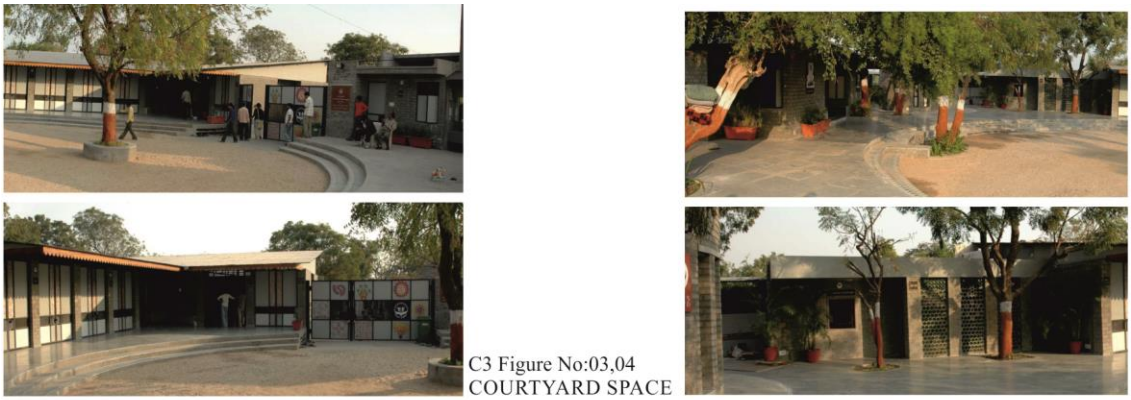
CONTEXT:

NEARLY**27.4 MILLION TONNES** OF WASTE IS PRODUCED DAILY IN THE URBAN CENTRES OF INDIA. CITIES LIKE AHEMDABAD PRODUCE 2750 METRIC TONNES. UNFORTUNATELY NOTHING REALLY GETS PROCESSED OF THE SAME. THIS WASTE IS SIMPLY DUMPED OPENLY IN THE LANDFILL SITES WHICH USES ENORMOUS VALOUME OF **FOSSIL FUELS**, POLLUTED, UNSAFE AND UNHEALTHY LANDSCAPE. THANKFULLY INDIA HAS A WELL ESTABLISHED TRADITION OF WASTE RECYCLING WHICH IS CLEARLY DEMONSTRATED IN OUR DAILY **PRACTISES AND LIFESTYLE**. FOOD ALONG WITH AMNY OTHER OBJECTS ARE GIVEN ADDED VALUE FOR THEIR MULTIPLE USES AND DIVERSE APPLICATIONS. CAN THE BUILDING INDUSTRY NOT LEARN FROM THESE APPLICATIONS? AN **ACTIVITY CENTRE** AT RAMA PIR TEKRE, WADAJ IN AHEMDABAD HAS BEEN ONE SMALL ATTEMPT IN THE DIRECTION OF RECYCLING MUNICIPAL/DOMESTIC WASTE INTO BUILDING MATERIALS



GROUND FLOOR PLAN

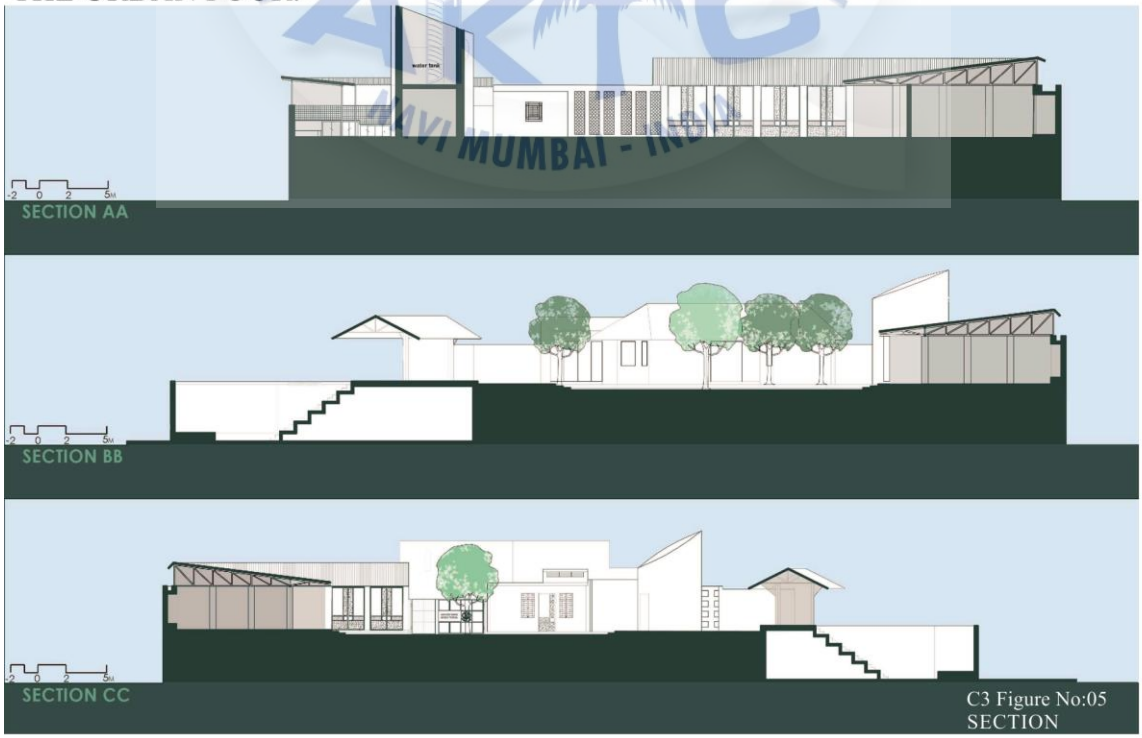
C3 Figure No:02
PLAN



C3 Figure No:03,04
COURTYARD SPACE

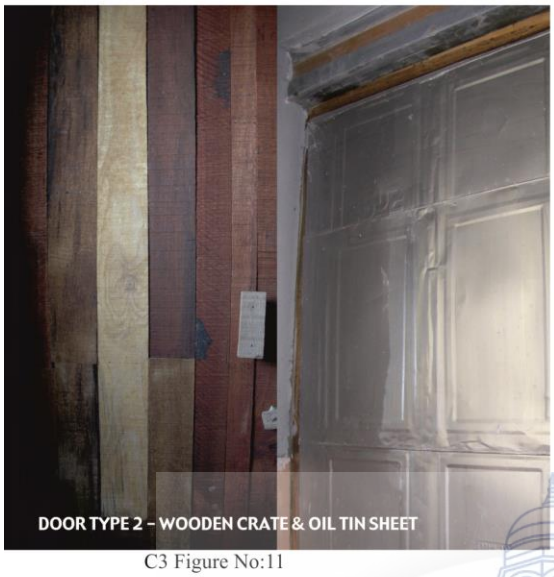
INTRODUCTION:

THE ACTIVITY CENTRE IS LOCATED AMIDST THE LEARGEST SQUATTER SETTLEMENT OF AHEMDABAD, AND WAS CREATED UNDER THE INITIATIVE OF THE SOCIAL NGO, MANAV SADHNA. THE MULTIPURPOSE ACTIVITY CENTRE SERVES AS AN INFROMAL SCHOOL FOR YOUNG CHILDREN, PROVIDES EVENING EDUCATION FOR ADULTS AND SERVES AS A TRAINING CENTRE AND ACTIVITY WORKSHOP FOR THE MANUFACTURING OF CRAFT BASED PRODUCTS BY WOMEN AND ELDERLY. THE CAMPUS ALSO INCLUDES A DROMITORY, AN ADMINISTRATIVE UNIT AND ALL RELIGION MEDITION UNIT. THE CAMPUS IS BUILT USING COMPONENTS PREPARED THROUGH RECYCLING MUNICIPAL/ DOMESTIC WASTE. THE PROCESS SIMULTANEOUSLY ADDRESSES ENVIRONMENTAL CONCERNS, ECONOMIC ISSUES AND AFFORDABLE HOUSING. IT HELPS IN WASTE POLLUTION. THROUGH VALUE ADDITION PROCESSES OF RECYCLING THE WASTE, IT PROVIDES A MEANS OF ECONOMIC ACTIVITY FOR THE POOR AS WELL AS A SENSE OF EMPOWERMENT. FINALLY AS THE RECYCLED BUILDING COMPONENTS ARE CHEAPER AND OF HIGHER QUALITY THAN THE CONVENTIONAL MATERIALS, THEY PROVIDE AFFORDABLE AND SUPERB QUALITY BUILDING ALTERNATIVES FOR THE URBAN POOR.

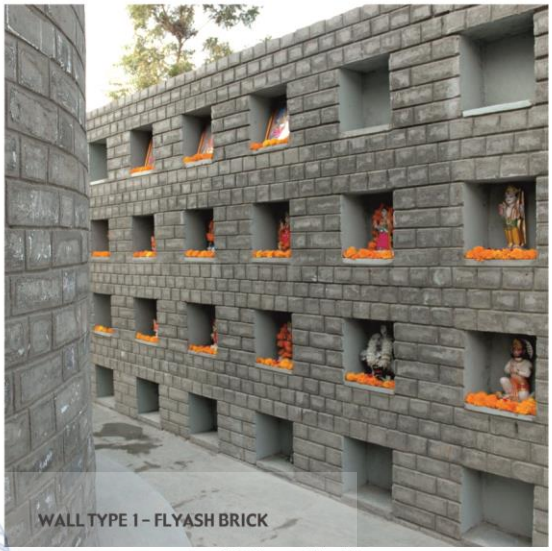


C3 Figure No:05
SECTION

- ELEMENTS MADE FROM WASTE MATERIALS:

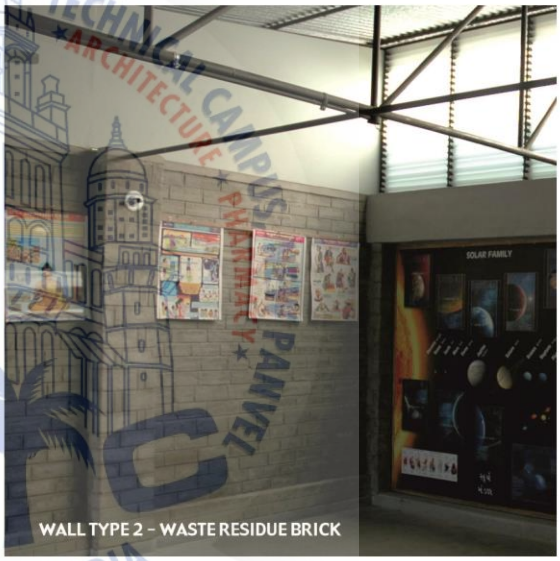


C3 Figure No:11

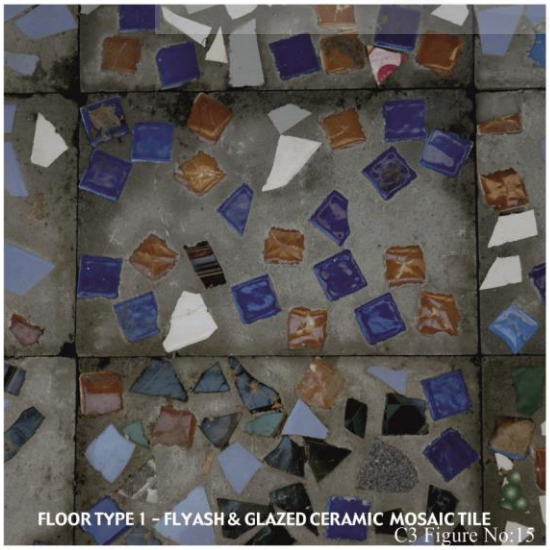


C3 Figure No:12

C3 Figure No:13



C3 Figure No:14



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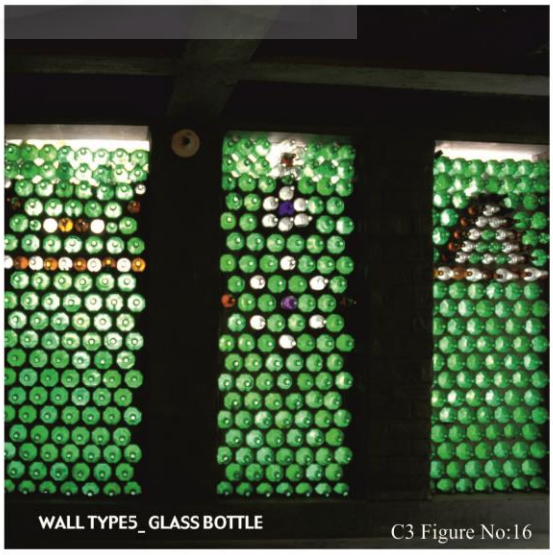
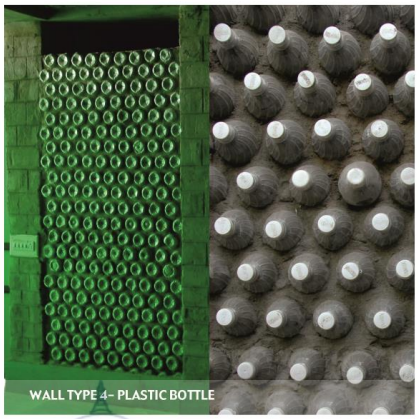


C3 Figure No:16

- ELEMENTS MADE FROM WASTE MATERIALS:

C3 Figure No:17



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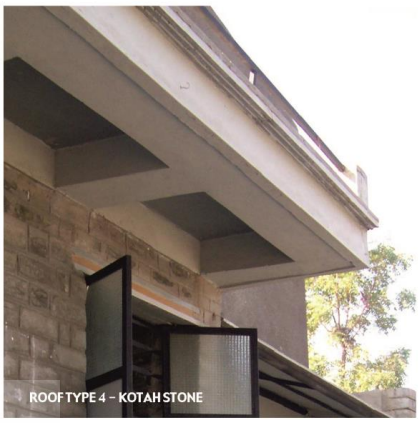

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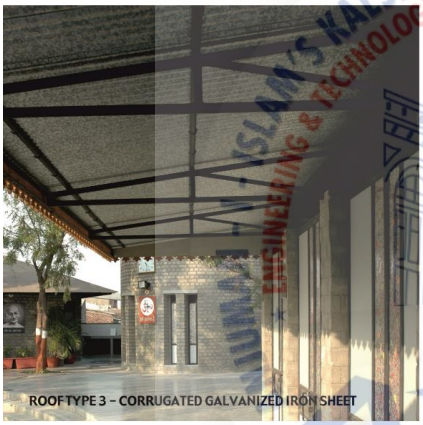


C3 Figure No:19

C3 Figure No:20

C3 Figure No:21

INFERENCES:

-
- THE FUNCTIONS FOR THIS STRUCTURE IS TOTAL DESIGNED AS PER THE NEEDS OF COMMUNITY.
-
- FOCUSED ON THE MAIN ISSUE WHICH IS WASTE AND COMMUNITY NEEDS BOUGHT TOGETHER MAKES A PERFECT BLEND.
-
- THE CENTRAL COURTYARD PLAY AN IMPORTANT ROLE WHICH HAS MULTIPLE USE THROUGHOUT THE DAY EVEN WITH CHANGING OF USERS.

Orestad College, Copenhagen (CASE STUDY -4)

PLANNING OF SPACES
FACADE FLEXIBILTY
CLASSROOM WITHOUT WALLS

ADDRESS: ØRESTAD BOULEVARD/ARNE JACOBSENS ALLÉ, COPENHAGEN
CLIENT: COPENHAGEN MUNICIPALITY
AWARD: 1. PRIZE IN INVITED COMPETITION 2003
COMPLETION: 2006
SIZE: 12.000 M2
ARCHITECT: 3XNIELSEN KIM HERFORTH NIELSEN, BO BOJE LARSEN, KIM CHRISTIANSEN

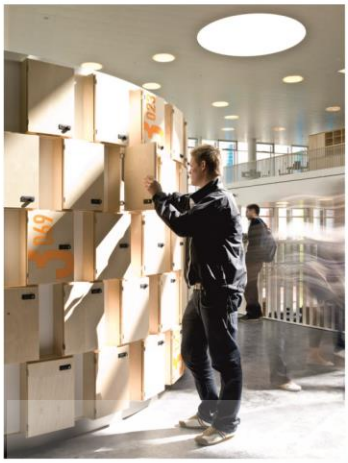
C4 Figure No: 01 VIEW

INTRODUCTION:

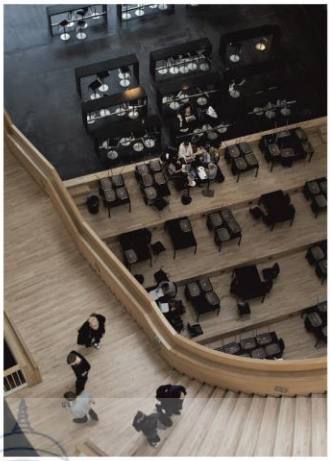
THE PROJECT DISPLAYS A VISIONARY INTERPRETATION OF OPENNESS AND FLEXIBILITY REGARDING TEAM SIZES, VARYING FROM THE INDIVIDUAL OVER GROUPS TO CLASSES AND ASSEMBLIES, AND REFLECTS INTERNATIONAL TENDENCIES AIMING AT ACHIEVING A MORE DYNAMIC AND LIFE-LIKE STUDYING ENVIRONMENT AND INTRODUCING IT AS A MAIN TOOL.
THE INTENTION IS ALSO TO ENFORCE THE STUDENTS' ABILITIES GRADUALLY TO TAKE RESPONSIBILITY FOR OWN LEARNING, BEING ABLE TO WORK IN TEAMS AS WELL AS WORKING INDIVIDUALLY.
THE COLLEGE IS INTERCONNECTED VERTICALLY AND HORIZONTALLY.
FOUR BOOMERANG SHAPED FLOOR PLANS ARE ROTATED TO CREATE THE POWERFUL SUPER STRUCTURE WHICH FORMS THE OVERALL FRAME OF THE BUILDING – SIMPLE AND HIGHLY FLEXIBLE.
FOUR STUDY ZONES OCCUPY ONE FLOOR PLAN EACH.
AVOIDING LEVEL CHANGES MAKES THE ORGANISATIONAL FLEXIBILITY AS HIGH AS POSSIBLE, AND ENABLES THE DIFFERENT TEACHING AND LEARNING SPACES TOOVERLAP AND INTERACT WITH NO DISTINCT BORDERS.

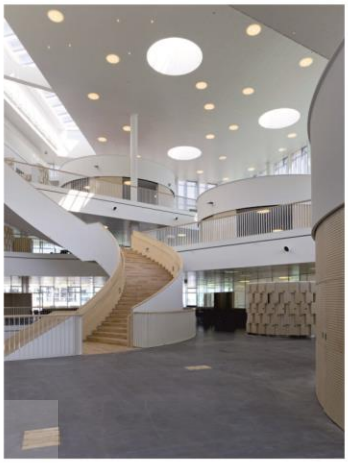
C4 Figure No: 02,03 CONCEPT OF CLASSROOM WITHOUT WALLS AND INTERACTIVE SPACES

SPACES AND FUNCTIONS

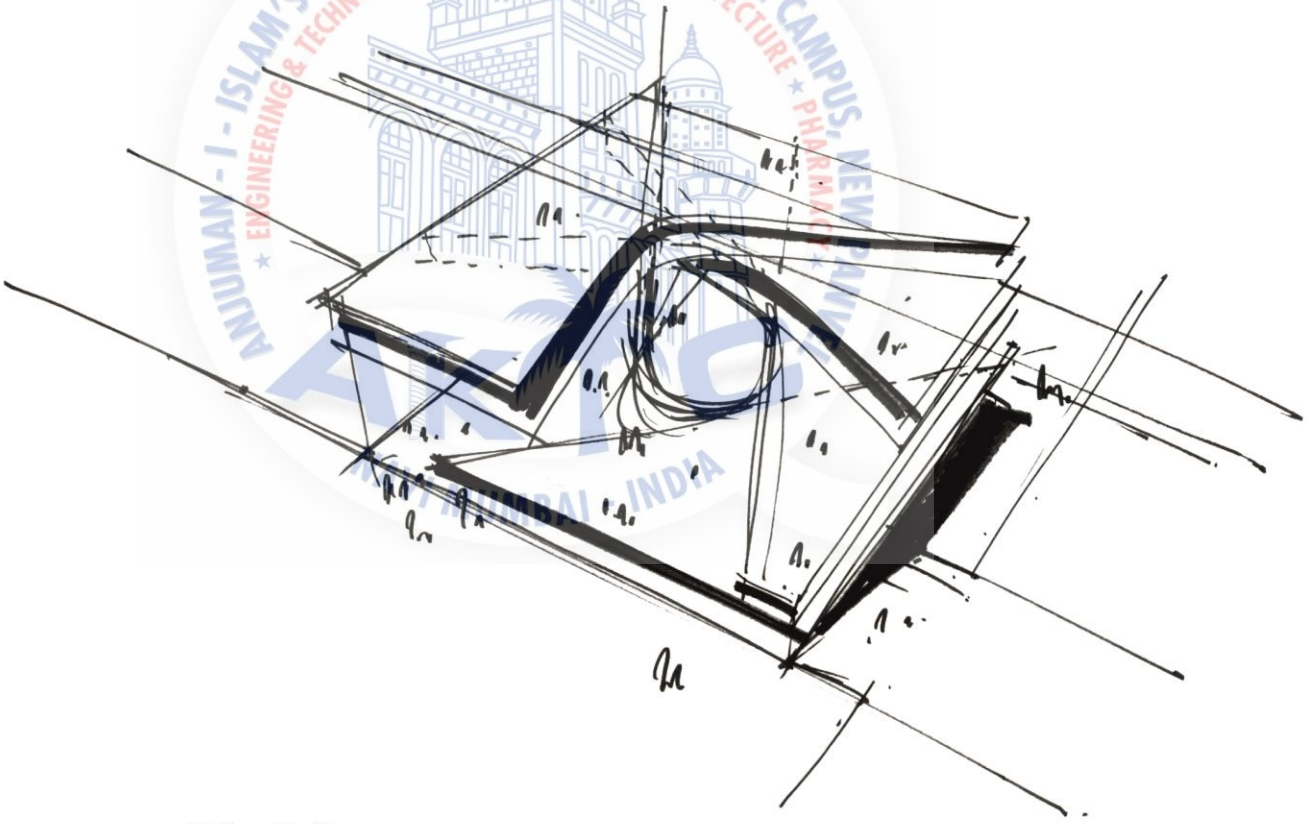


C4 Figure No: 04
STORAGES FOR STUDENTS

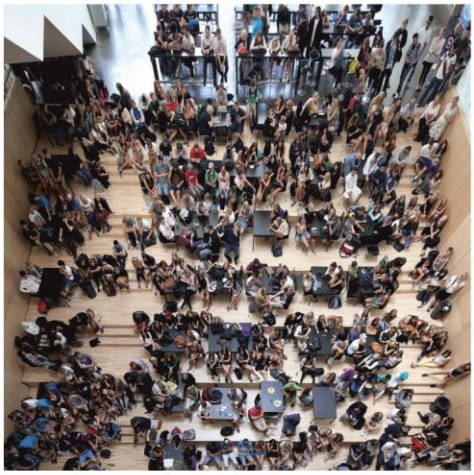




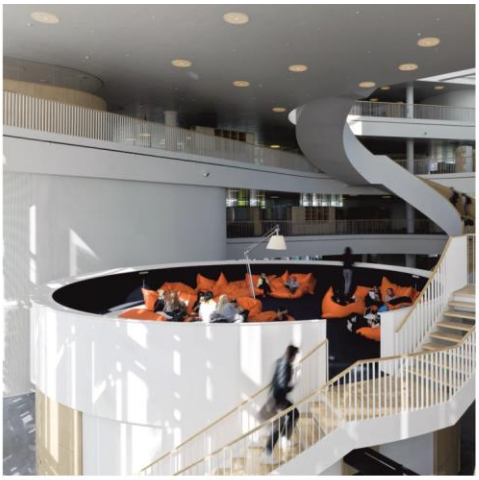
C4 Figure No: 05,06
MAIN STAIRCASE CONNECTING ALL SPACES WITH ON MIDLANDING



C4 Figure No: 07
CONCEPTUAL SKETCH
BOOMERANG SHAPED SPACES CREATING INTERACTION
SPACE AND OPEN SPACES
CONNECTED CENTRALLY

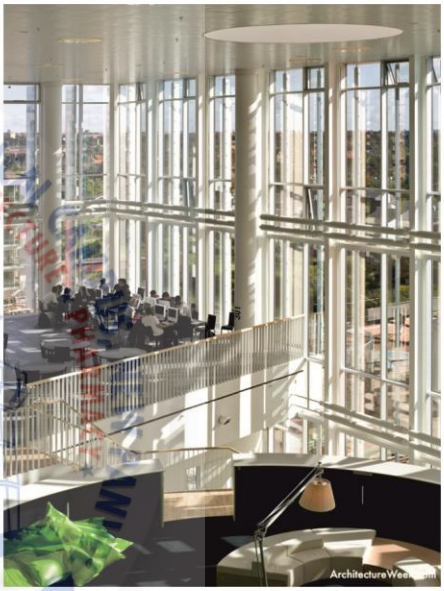


C4 Figure No: 08
AMPHITHEATRE IN CENTRE WHICH ALSO CREATES SPACES FOR SELF STUDY AND GROUP STUDIES



C4 Figure No: 09
CENTRAL STAIRCASE CONNECTED TO OPEN CLASSROOMS AND COMMON SPACES.

C4 Figure No:10
OPEN CLASSROOM CONCEPT

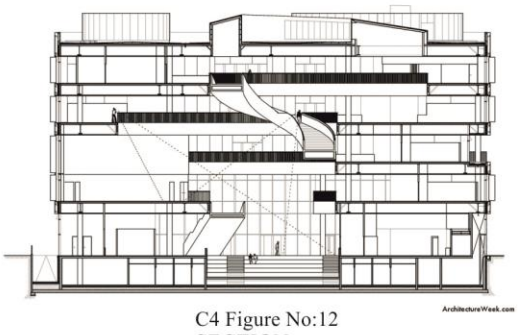


C4 Figure No:11
EVERY SPACES EXPERIENCES A HUGE SCALE AND DAY LIGHT WITHOUT ARTIFICIAL LIGHTING

C4 Figure No:11
VIEW.

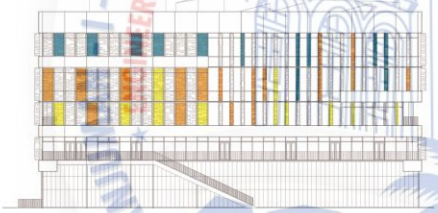
INFERENCES:

- BREAKING THE STEREOTYPICAL SPACES OF A SCHOOL WHICH IS GIVING A MORE POSITIVE JUSTICE TO SCHOOL.
- TRANSPARENCY OF EXTERIOR AND INTERIOR, INTERIOR AND INTERNAL FUNCTIONS
- DAY LIGHTING IS MAXIMUM DUE TO FLEXIBLE FACADE.

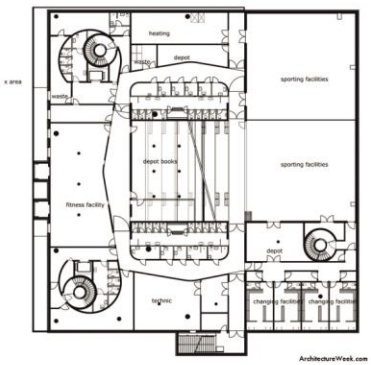


C4 Figure No:12
SECTION

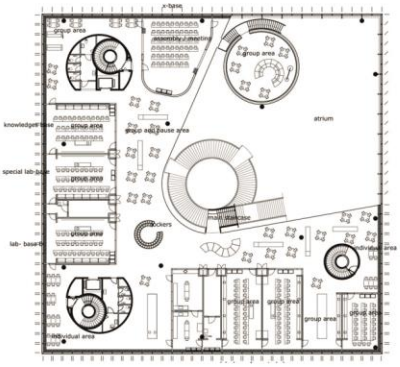
C4 Figure No:13
ELEVATION FLEXIBLE
FACADE



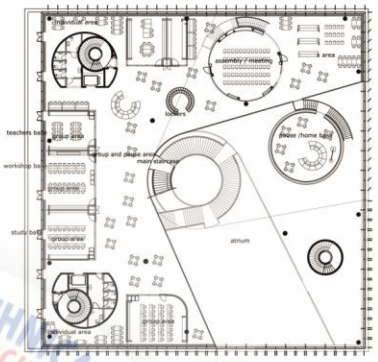
C4 Figure No:14
ELEVATION



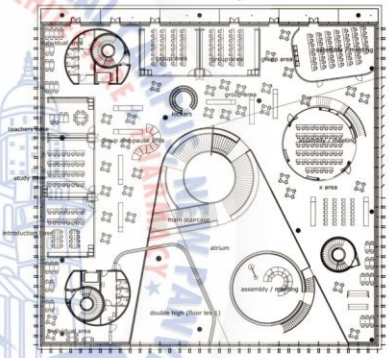
C4 Figure No:15
CELLAR FLOOR



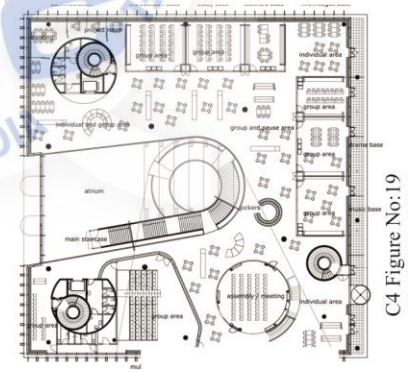
C4 Figure No:16
FOURTH FLOOR



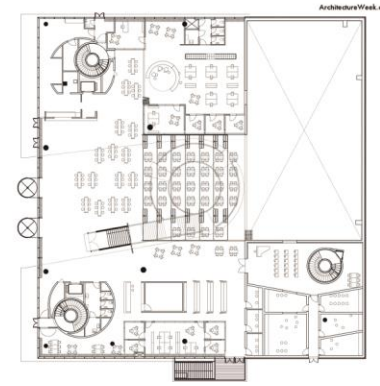
C4 Figure No:17
THIRD FLOOR



C4 Figure No:18
SECOND FLOOR



C4 Figure No:19
FIRST FLOOR



C4 Figure No:20
GROUND FLOOR

SECMOL, LADAKH (CASE STUDY -5)

PLANNING OF SPACES
CLIMATALOGY
ALTERNATIVE PROGRAMME

INTRODUCTION

THE STUDENTS' EDUCATIONAL AND CULTURAL MOVEMENT OF LADAKH (SECMOL) WAS FOUNDED IN 1988 BY A GROUP OF LADAKHI COLLEGE STUDENTS WHO FELT THAT THE EDUCATION SYSTEM NEEDED GREAT CHANGE. **FOR MANY YEARS, SECMOL WORKED ON REFORMING THE GOVERNMENT SCHOOL SYSTEM. AT THE SAME TIME, SECMOL CAMPUS GREW INTO A ECO-VILLAGE WHERE STUDENTS, STAFF AND VOLUNTEERS LIVE, WORK AND LEARN TOGETHER**. IT'S NOT A CONVENTIONAL SCHOOL, BUT A PLACE TO PURSUE PRACTICAL, ENVIRONMENTAL, SOCIAL AND TRADITIONAL KNOWLEDGE, VALUES AND SKILLS. **THE CAMPUS IS SOLAR POWERED AND SOLAR HEATED; STUDENTS LEARN ANCIENT LADAKHI SONGS, DANCE AND HISTORY ALONGSIDE MODERN ACADEMIC KNOWLEDGE; AND THE STUDENTS MAINLY MANAGE, RUN AND MAINTAIN THE CAMPUS.**

LADAKH IS A HIGH DESERT REGION IN THE INDIAN HIMALAYAS, WITH A CULTURE AND HISTORY DRAWING FROM TIBET, INDIA, KASHMIR AND CENTRAL ASIA. NO ROAD CONNECTED IT TO THE OUTSIDE WORLD UNTIL THE 1960S, BUT RECENT DECADES HAVE BROUGHT A FLOOD OF DEVELOPMENT AND TOURISM. SECMOL STRIVES TO EQUIP YOUNG LADAKHIS AND OTHERS GROWING UP IN LADAKH, ESPECIALLY THOSE FROM RURAL OR DISADVANTAGED **BACKGROUNDS, WITH THE KNOWLEDGE, SKILLS, PERSPECTIVE, AND CONFIDENCE TO CHOOSE AND BUILD A SUSTAINABLE FUTURE.**

SECMOL -LADAKH

C5 Figure No:01
SECMOL FRONT VIEW

FOUNDATION YEAR

Foundation Year is a year-long residential programme for 40 students from Ladakh:

youth who failed class 10
dropouts
students who passed class 10 but want a gap year for learning
A typical day of Foundation Year is packed with activities from early morning to late evening.

- Basic English
- English conversation with volunteers
- Science: solar energy, health, nature, environmental studies
- Responsibilities for running the campus and daily work hour
- Morning talk about current issues and self development
- Evening activities include traditional song and dance or a fun dance party; quiz competition; games; debate; movie; etc.

- Classes that run for part of the year or alternate with each other:
- Ladakhi history and geography
- Ladakhi language and literacy
- Computer
- Basic maths
- Library hour

C5 Figure No:03
NEIGHBOURHOOD

C5 Figure No:04
CONSTRUCTION BY LADAKHIS

C5 Figure No:05
GATHERING SPACES

C5 Figure No:02
SECMOL FRONT VIEW

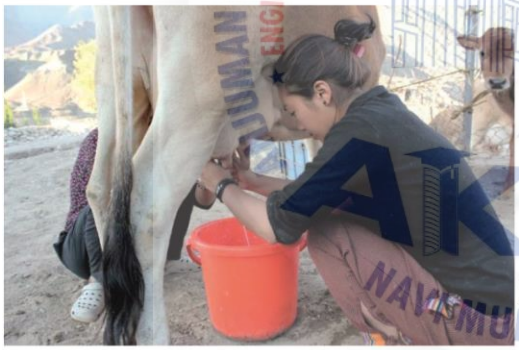
C5 Figure No:06
MUSIC WORKSHOP

- **SOME OTHER ACTIVITIES AND TYPES OF LEARNING**

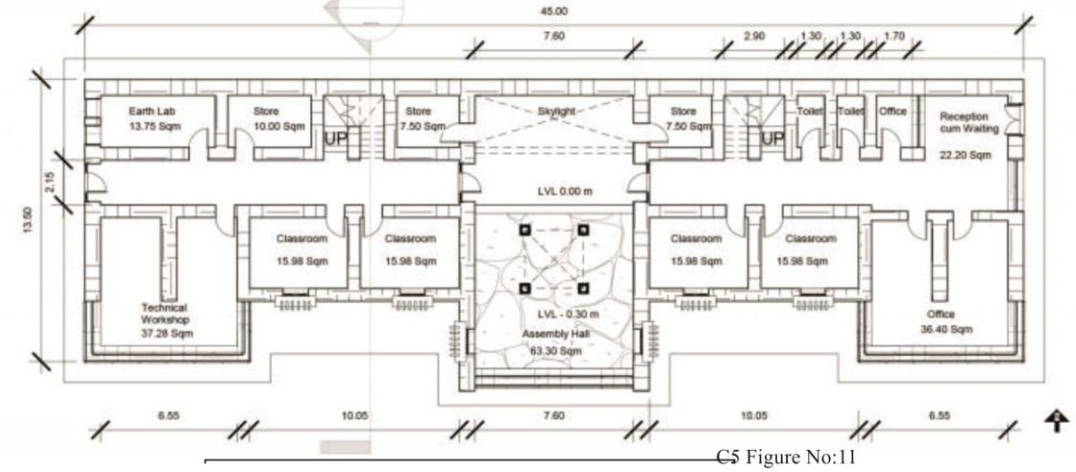
- TRADITIONAL LADAKHI SONGS AND DANCES
- RESPONSIBILITY FOR RUNNING THE CAMPUS
- DAILY WORK HOUR
- CHANCE TO RUN IN A MARATHON, OR LEARN ICE SKATING AND OTHER SPORTS
- PUBLIC SPEAKING
- CRITICAL THINKING, DISCUSSION, INFORMAL DEBATE
- CAREER WORKSHOP
- GARDENING AND CARING FOR ANIMALS AND TREES
- ICE SKATING
- EXPOSURE TOUR

C5 Figure No:07
ENGLISH LESSONS , STUDENTS LEARNING FROM VOLUNTEERS

C5 Figure No:09
CAREER WORKSHOP, HANDS ON EXPERIENCE



C5 Figure No:10
TAKING CARE OF ANIMALS AND TREES



C5 Figure No:11
SECMOL MAIN BUILDINGPLAN

THE SECMOL BUILDINGS USE PASSIVE SOLAR ARCHITECTURE: FIRST, THEY FACE SOUTH AND SO GET THE SUN ALL THROUGH THE YEAR. THEIR TRADITIONAL LADAKHI THICK RAMMED-MUD WALLS HAVE HIGH THERMAL CAPACITY, WHILE THE REAR END OF THE BUILDINGS PUSH INTO THE HILLSIDE SO THAT THE TEMPERATURE INSIDE DOES NOT FALL BELOW THE SOIL TEMPERATURE. AESTHETICALLY PAINTED BLACK BANDS ABSORB THE SUN'S HEAT WHILE IN WINTER THE SLANTED FRAMES HOLD POLYTHENE SHEETS TO PRODUCE GREENHOUSE HEATING.

C5 Figure No:11
BAACKYARD NEAR KITCHEN

C5 Figure No:12

C5 Figure No:13
SOLAR KITCHEN

C5 Figure No:14
ICE GLACIERS

SECMOL BUILDING ARE HEATED WITHOUT EMITTING Co2 OR BURNING ANYNTHING FUEL SUCH AS FIREWOOD OR GAS, NOR ELECTRIC HEATERS. PASSIVE SOLAR DESIGN ABSORBS HEAT FROM THE SUN AND THEN STORES IT AS LONG AS POSSIBLE. IT DOES NOT USE CIRCULATING WATER PIPES, AIR BLOWERS, OR MOVING PARTS. WITH ONLY PASSIVE SOLAR HEATING, THE SECMOL BUILDINGS HAVE RUN.

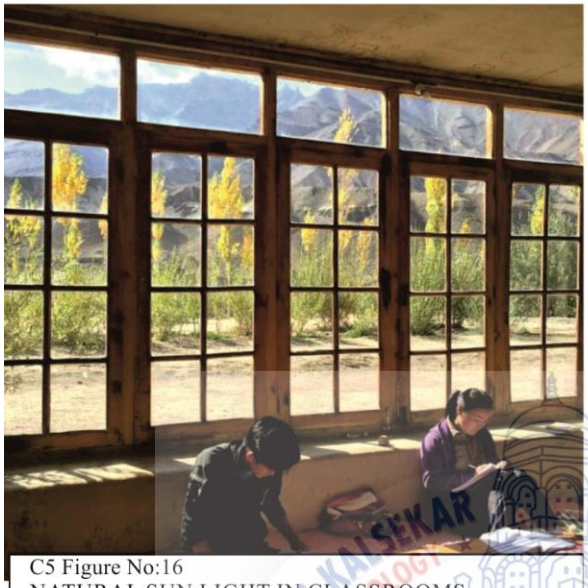
RESIDENTIAL PROGRAMMES EVERY WINTER FOR THE LAST 15 YEARS- EVEN WHEN THE MINIMUMOUTSIDE TEMPERATURE FALLS TO -25 DEGREE CELSIUS.

THE TEMPERATURE IN THE MAIN BUILDING AT SECMOL CAMPUS HAS BEEN:

- NORMAL EVEING TEMP. IN COLDEST PART OF WINTER: +14DEG. C
- MINIMUM IN A NORMAL WINTER+ 10 DEG. C
- MINIMUM OBSERVED IN 19 DEG. C

NATURAL LIGHTING: THE SUN

WINDOWS AND SKYLIGHTS ENSURE THAT NO PLACE IN THE BUILDING NEEDS ELECTRIC LIGHTS IN THE DAY.



C5 Figure No:16
NATURAL SUN LIGHT IN CLASSROOMS

C5 Figure No:17
NATURAL SUN LIGHT IN WORKSHOP SPACES

OBJECTIVE:

TO UNDERSTAND THE NEED OF SUCH SCHOOL IN A COUNTRY WITH A RICH CULTURE.

TO STUDY THE POINTS TO BE REMEMBERED WHILE DESIGNING IN SIMILAR CONDITIONS.

TO KNOW THE CULTURAL VALUES IN EDUCATION AND ARCHITECTURAL SOLUTIONS IN EXTREME CLIMATE.

METI SCHOOL, BANGLADESH (CASE STUDY -5)

PLANNING OF SPACES
LOCAL MATERIALS
ALTERNATIVE PROGRAMME

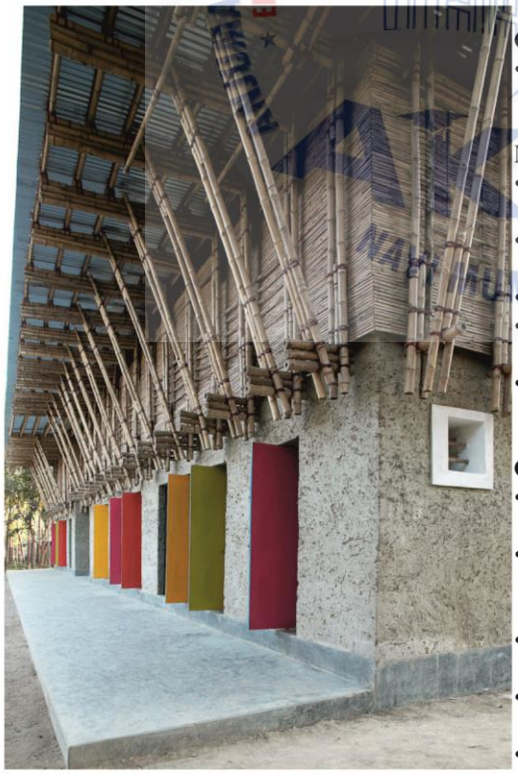
PROJECT NAME: METI SCHOOL
LOCATION: RUDRAPUR, DINAJPUR DISTRICT, BANGLADESH
GROUND FLOOR: 3 CLASSROOMS AND 6 'CAVES',
FOOTPRINT : 275 M

C6.FIG.1 SITE CONTEXT AND NEIGHBORHOOD

CONSTRUCTION
25 TO 30 LOCAL WORKERS

- WORKERS BY TRADE
- 8 BRICK LAYERS
- 12 – 20 LABOURERS FOR EARTHEN BUILDING
- 8 LABOURERS FOR BAMBOO CONSTRUCTION
- 1 FOREMAN, 2 APPRENTICES, 5 TRAINEES, METI TRAINING WORKSHOP FOR JOINERS
- 5 PLASTERERS (INTERIOR PLASTER)
- 1 LOCAL FOREMAN
- 2 ARCHITECTS, 2 CRAFTS EXPERTS (TEAM FROM GERMANY)
- 4 – 6 VOLUNTEERS, (STUDENTS, TEACHERS, WORKMEN FROM GERMANY AND AUSTRIA)

C6.FIG.2 SCHOOL ELEVATION



C6.FIG.3 USE OF VIBRANT COLOURS AND SUSTAINABLE MATERIALS IN THE END WALL DETAIL

CONSTRUCTION PERIOD

- 6 MONTHS (SEPTEMBER TO DECEMBER 2005 AND MARCH, APRIL 2006)

MATERIALS USED

- 83 M3 MASONRY BRICKWORK FOR FOUNDATIONS AND VERANDA
- 270 M3 COB FOR WALLS, CEILINGS IN THE 'CAVES', RAMMED EARTH FLOORS
- 400 TONNES WET EARTHEN MATERIAL
- 2,300 BAMBOO CANES FOR CEILINGS, UPPER STOREY, FACADES
- 12,500 BAMBOO STRIPS FOR UPPER STOREY BAMBOO FACADES

CONSTRUCTION

- FOUNDATIONS: BRICK MASONRY WITH DAMP PROOF COURSE
- WALLS, GROUND FLOOR: LOAD-BEARING COB WALLING (WET EARTH TECHNIQUE, STRAW-EARTH MIXTURE)
- CEILING: BAMBOO CEILING, TRIPLE-LAYER WITH COB FILLS
- UPPER FLOOR: FRAMEWORK OF THICK BAMBOO MEMBERS
- FACADE UPPER FLOOR: TIMBER WINDOW FRAMES WITH BAMBOO CLADDING
- FLAT ROOF, CORRUGATED IRON ROOFING

C6.FIG.4 NIGHT VIEW OF THE SCHOOL - HOW THE COLOUS LIT UP TO GIVE AN AESTHETIC

C6.FIG.5 USE OF LOCAL LABOR AND MATERIALS

EDUCATION PROGRAM:

- METI WORKS WITH THE PHILOSOPHY OF 'LEARNING WITH JOY'. THE STUDENTS ARE ENCOURAGED BY THE TEACHERS TO UNDERSTAND AND DEVELOP THEIR OWN POTENTIAL, UTILIZING IT IN A CONSCIENTIOUS AND CREATIVE WAY.
- THESE PRINCIPALS FORM THE CONCEPT OF THE SCHOOL BUILDING IN TERMS OF ARCHITECTURAL DESIGN, MATERIALS USED AND CONSTRUCTION TECHNIQUES ADOPTED.
- ***ALONG WITH PROVIDING HOLISTIC EDUCATION, THE SCHOOL INTENDS TO ENHANCE THE PREVAILING BUILDING TECHNIQUES, TO CONTRIBUTE TO SUSTAINABILITY BY EMPLOYING THE LOCAL POTENTIAL AND TO BOLSTER THE REGIONAL IDENTITY.***

CONCEPT AND DESIGN: METI A***IMS TO PROMOTE INDIVIDUAL ABILITIES AND INTERESTS TAKING INTO ACCOUNT THE DIFFERENT LEARNING SPEEDS OF THE SCHOOLCHIL- DREN AND TRAINEES IN A FREE AND OPEN FORM OF LEARNING.***

IT OFFERS AN ALTERNATIVE TO THE TYPICAL FRONTAL APPROACH TO LESSONS. **THE ARCHITECTURE OF THE NEW SCHOOL REFLECTS THIS PRINCIPLE AND PROVIDES DIFFERENT KINDS OF SPACES AND USES TO SUPPORT THIS APPROACH TO TEACHING AND LEARNING. ON THE GROUND FLOOR WITH ITS THICK EARTH WALLS, THREE CLASSROOMS ARE LOCATED EACH WITH THEIR OWN ACCESS OPENING TO AN ORGANICALLY SHAPED SYSTEM OF 'CAVES' TO THE REAR OF THE CLASSROOM. THE SOFT INTERIORS OF THESES SPACES ARE FOR TOUCHING, FOR NESTLING UP AGAINST, FOR RETREATING INTO FOR EXPLORATION OR CONCENTRATION, ON ONE'S OWN OR IN A GROUP.**

THE UPPER FLOOR IS BY CONTRAST LIGHT AND OPEN, THE OPENINGS IN ITS BAMBOO WALLS OFFERING SWEEPING VIEWS ACROSS THE SUR- ROUNDINGS, ITS LARGE INTERIOR PROVIDING SPACE FOR MOVEMENT. THE VIEW EXPANDS ACROSS THE TREETOPS AND THE VILLAGE POND. LIGHT AND SHADOWS FROM THE BAMBOO STRIPS PLAY ACROSS THE EARTH FLOOR AND CONTRAST WITH THE COLOURFUL MATERIALS OF THE SARIS ON THE CEILING.

C6.FIG.6 FIRST FLOOR OPEN SPACE

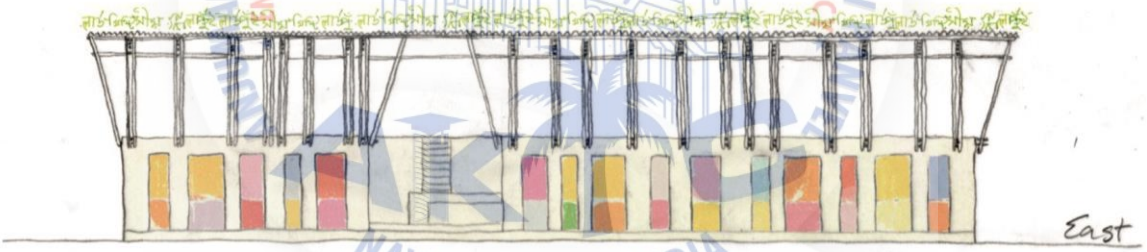
C6.FIG.7 BREAKING CLASSROOM STEREOTYPE

METI ALTERNATIVE APPROACH

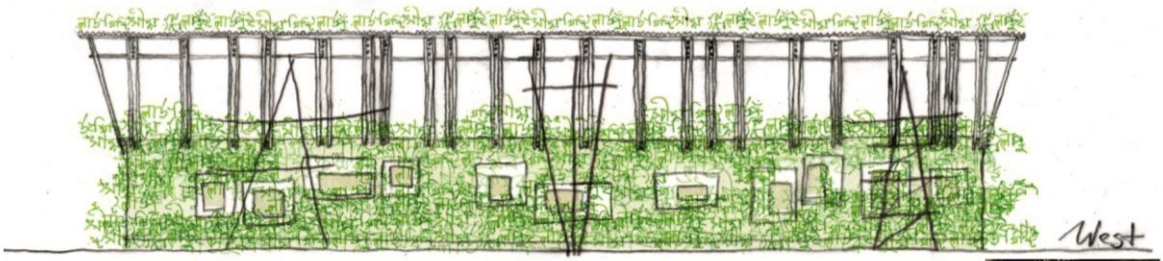
METI, MODERN EDUCATION AND TRAINING INSTITUTE: METI ENABLES CHILDREN AND YOUNG PEOPLE IN THE REGION TO TAKE CLASSES UP TO THE AGE OF 14 AND PROVIDES WORKSHOPS FOR TRADE-ORIENTED PROFESSIONS. THE IDEA IS TO PROVIDE THE RURAL POPULATION WITH ACCESS TO GOOD, HOLISTICALLY-ORIENTED EDUCA- TION. THE CHILDREN AND YOUNG PEOPLE ARE ENCOURAGED TO DEVELOP INTO RESPONSIBLE, MOTIVATED AND CREATIVE PERSONALITIES AND TO USE THEIR SKILLS TO IMPROVE AND DEVELOP THEIR IMMEDIATE RURAL ENVIRONMENT. READING, WRITING AND ARITHMETIC AS WELL AS LANGUAGES ARE OFFERED IN A FREE ENVIRONMENT AND THROUGH OPEN FORMS OF LEARNING. MEDITATION, DANCE AND CREATIVE WRIT- ING ARE PART OF EVERYDAY LEARNING AT THE METI SCHOOL AS ARE DISCUSSIONS, LEARNING AS PART OF A GROUP AND SELF-CRITICAL AND SOCIAL BEHAVIOUR.

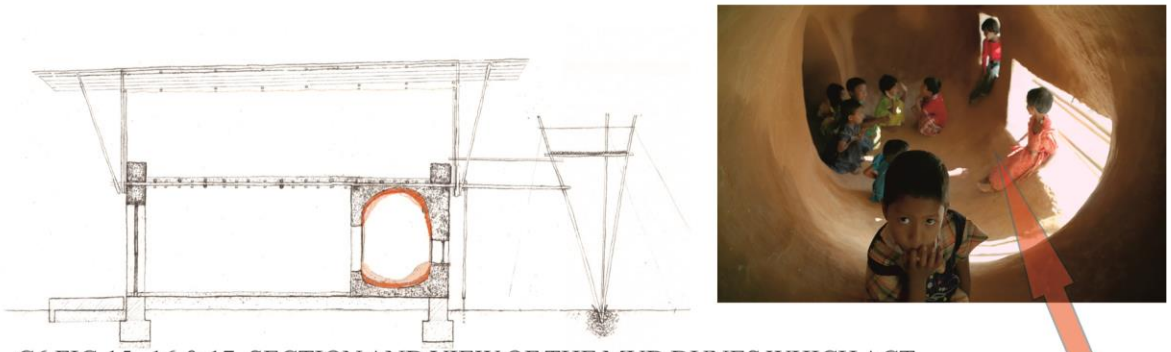
C6.FIG.9
CLASSROOM OPENINGS AND PLAY O F SHADOWS

C6.FIG.10
STUDENTS ENJOYING IRREGULAR OPENINGS ACTING AS INTERACTIVE SPACES

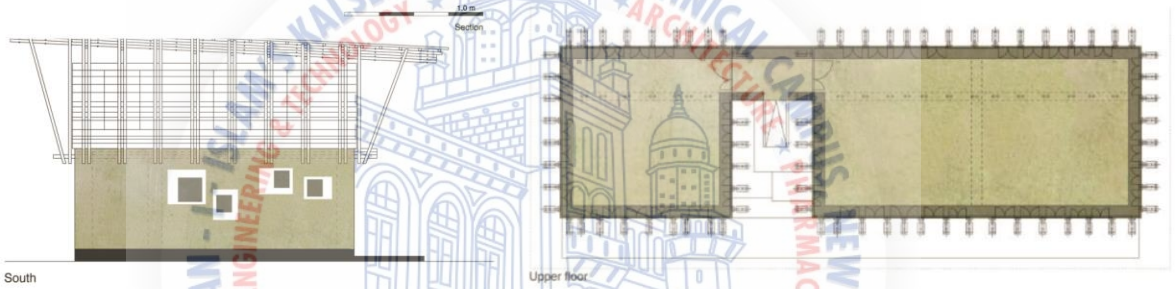


C6.FIG.11 EAST AND WEST SCHOOL FACADES WITH IRREGULAR OPENINGS

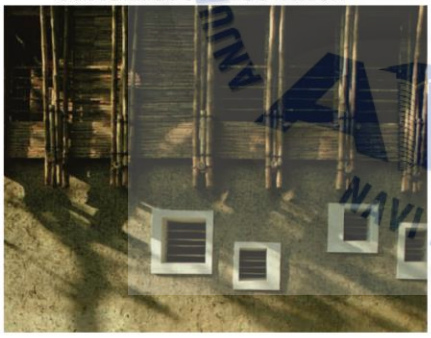




C6.FIG.15 , 16 & 17 SECTION AND VIEW OF THE MUD DUNES WHICH ACT AS STUDENT INTERACTIVE SPACES



C6.FIG.20 SOUTH ELEVATION



C6.FIG.21 EARTHBOUND MATERIALS SUCH AS LOAM AND STRAW ARE COMBINED WITH LIGHTER ELEMENTS LIKE BAMBOO STICKS AND NYLON LASHING TO CREATE A ENVIRONMENTALLY SUSTAINABLE FOUNDATION.

C6.FIG.22 VIEW INTO THE CLASSROOM FROM THE MOLDED CAVESPACES.

C6.FIG.23 THICK WALLS ASSURE A COMFORTABLE CLIMATE ON THE GROUND FLOOR OF THE BUILDING.

INFERENCES:

- FUNCTIONS AS PER THE ALTERNATIVE SCHOOLING PROGRAM.
- OPEN LEARNING ADAPTED.
- FREE FLOW SPACES CREATES INTERACTION AMONG TEACHERS AND STUDENTS.
- CLOSE PROXIMITY AND ADAPTABILITY TO NATURE AND SUSTAINABLE USE OF RESOURCES
- SENSE OF BELONGING IN THE CAMPUS.
- AWARENESS OF LOCAL MATERIAL AND ITS CONSTRUCTION .
-

2.2.4 CASE STUDY INFERENCES

A. COMPARITIVE ANALYSIS (SPATIAL EXPERIENCE)
B. COMPARITIVE ANALYSIS (FUNCTIONS)
C. COMPARITIVE ANALYSIS (ALTERNATIVE PROGRAM)

A. COMPARITIVE ANALYSIS (SPATIAL EXPERIENCE)

SPATIAL EXPERIENCES AND ANALYSIS

THE LAST SCHOOL

SPACES ARE USER FRIENDLY - TRIGGERS CREATIVITY AND A SENSE OF BELONGING - HAS A CONTEXTUAL ATTRIBUTE AT THE SAME TIME IS MATURE ENOUGH TO CATER TO THE USER GROUP OF 17- 24 YEARS YOUNG ADULTS. VIVID AND ACCESSIBLE SPACES WITH PLAY OF VOLUME AND TEXTURES.
IT WIDELY OPEN TO NATURE IT HAS HUGE OPENINGS . THE SPACE INSIDE CAN BE TRANSFORMED TO OUTER LANDSCAPE.

ANJMAN-I-ISLAM

SPACE SEGREGATION OF THIS SCHOOL IS NOT PLANNED IN A GOOD WAY. THE ORIENTATION IS LACKING IN THIS STRUCTURE. THE STRUCTURE NEEDS TO BE REVAMPED
THE MAIN FEATURE IS THAT IT HAS AN OLYMPIC SIZE 400M RUNNING TRACK WHICH GOOD FOR SPORTS PREPARATION.

ORETAD COLLEGE

SPACES HAVE A CLOSE CONNECTION WITH MULTIPLE COURTYARDS ACTS AS SAFE OPEN NATURAL SPACES WHICH IS CONNECTED ENCLOSURE FOR THE KIDS FOR WITH A STAIRCASE. RECREATIONAL SPACE AT THE SAME TIME
THE CONCEPT OF OPEN CLASSROOMS IS USED THEY DO NOT FEEL CAGED WHILE BEING IN IN THIS STRUCTURE. THE VISUAL CONNECTIVITY OF THE
FREE LEARNING AND HIGHLY DISCUSSION IS FACULTY.
GIVEN MORE PRIORITY IN THIS COLLEGE. GOOD USE OF LARGE ROOF SURFACE AREA
FACADE IS ALSO WORKING GREAT IN WAY OF AS CULTIVATION OF FOOD.
NATURAL LIGHTING WHICH DYNAMIC FACADE ALL THE CLASSROOMS ARE VISUALLY AND
MOVABLE OPTIONS PHYSICALLY CONNECTED TO THE OPEN COURTYARDS.
FREEDOM IN TERMS OF ACCESSIBILITY WHILE BEING SECURE - GOOD PLANNING.

SECMOL

BEING LOCATED AT THE RURAL CONTEXT, THE SPACES ARE HIGHLY INSPIRED BY THE LOCAL ARCHITECTURAL SPACES OF COURTYARDS AND SEMI OPEN AREAS. THE CLASSROOMS FLEXIBLE AND APPEAR VISUALLY BIGGER AND BRIGHTER DUE TO GOOD NATURAL LIGHT .THE BUILT MERGES WITH THE ADJOINING ENVIRONMENT.
IT IS HIGHLY CONTEXT FOCUSED FROM STRUCTURE TO THE CURRICULUM FOLLOWED IS RESTRICTED AND DESIGNED ACCORDING TO NEED OF THE CONTEXT OF LADAKH AND LADAKHIS.

NANDANAM KINDERGARTEN

CENTRE MAIN COURTYARD GIVES THE OPTION FOR COMMUNITY GATHERINGS AL WELL AS OTHER ACTIVITIES.
THE SAME STRUCTURE HAS MANY DIFFERENT ROLES ON DIFFERENT TIMES.
IT HAS USED THE MATERIALS MAILY 80 PERCENT WASTE MATERIAL.

MITI SCHOOL

STUNNING USE OF LOCAL MATERIALS FROM FOUNDATION LEVEL TO ROOF LEVEL.
EXCELLENT INNOVATION IN STUDENT'S SPACE - NO STEREOTYPICAL USE OF FURNITURE - MUD CAVES ARE INTERACTIVE TAILOR MADE FOR THE STUDENTS FOR LEARNING WITH FUN EXPERIENCE.
MULTIPLE SCOPE FOR HANDS ON EXPERIENCE AND PRACTICAL KNOWLEDGE.
USE OF VIBRANT COLOURS TO ENHANCE FOCUS AND TRIGGER CURIOSITY. GIVES THEM AN IDEA ABOUT HOW THE LOCALLY LYING MATERIALS AROUND THEM CAN BE MADE TO SUCH A BEAUTIFUL USE WITH GOOD KNOWLEDGE AND CONSTRUCTION TECHNIQUES.

MANAVSADHNA

COMMON INFERENCES :

IN ALL THE ABOVE CASE STUDIES THE FOLLOWING POINTS WERE COMMON:

- USE OF DIFFERENT COLOURS HELP TRIGGER CREATIVITY AND A POSITIVE ENVIRONMENT.
- CONTEXTUAL AND LOCAL MATERIAL IMPARTS A SENSE OF BELONGING AND DOESN'T MAKE THE CHILD FEEL ALIEN IN THE BUILT FORM.
- NATURE PLAYS A CRUCIAL ROLE IN THE FORM OF RECREATIONAL AND SPILL OUT SPACES - STUDENTS TEND TO GO TO NATURE FOR COMFORT AND EASE.
- FORM AND SHAPE OF THE SPACES THEY ARE ENCLOSED IN PLAYS A CRUCIAL ROLE ESPECIALLY IN THE AGE GROUP OF 5-11 YEARS.
- OPEN - SEMI OPEN SPACES INDUCE THE CHANCES OF MORE INTERACTION AND DISCUSSIONS THAN JUST A CLOSED ROOM.

SPACES	ORETAD COLLEGE	THE LAST SCHOOL	ANJUMAN-I-ISLAM	NANDANAM KINDERGARTEN	SECMOL LADAKH	MITI SCHOOL	MANAVSADHNA
Classrooms	1	1	1	1	1	1	1
Libraries	1	1	1	1	1	0	0
Digital libraries	1	1	0	0	0	0	0
Multifunctional spaces	1	1	1	1	1	1	1
Hands on experience areas/ spill over spaces	0	1	0	1	1	1	1
Workshop spaces	1	1	0	0	1	1	1
Spill overs/courtyards	1	1	1	1	1	1	1
Lifts	1	0	0	0	0	0	1
Landscape treatment	0	1	0	1	0	0	1
Use of local material and construction techniques	1	1	1	1	1	1	1
Climate responsive in terms of space planning and design	1	1	0		1	1	1
Hostel	0	0	1	0	0	0	0
Sports facilities	0	0	1	1	1	1	0

Daylighting design principles used	1	1	0	1	1	1	1
Waste management on campus	0	1	1	0	1	0	0
Alternative(1) Normal course(0)	0	1	0	1	1	1	1
Innovation in learning space	1	1	0	1	1	1	1
Other allied activities in terms of environment and sustainability	0	1	0	1	1	1	1

C. COMPARITIVE ANALYSIS (ALTERNATIVE PROGRAM)

SYSTEM	MONTESSORI PHILOSPHY	WALDORF PHILOSOPHY	FREE PROGRESS PHILOSOPHY
FOUNDER	MARIA MONTESSORI	RUDOLF STEINER	SRI AUROBINDO AND THE MOTHER
IDEOLOGY	• Child allowed to behave according to natural inclinations. • No surge of settled obligation or programme • Free movement of child and his work in and out of classroom • Promoting natural curiosity.	• Part whole relationship: head, heart and hand. • Forming students with autonomous and free spirit life • Classroom as community- Unifiction between communities. • Stressing arts and acting, as well as a special sort of dance called eurhythmy.	• Five activities the physical, the vital the mental, the psychic and the spiritual. • Nothing can be taught teacher as guide rather than an instructor • Free progress • Imagination and practically

2.3 RESEARCH DESIGN

2.3.1 Standards and Data Collection.

This Indian Standard was adopted by the Indian Standards Institution on 27 February 1978, after the draft finalized by the Functional Requirements in Buildings Sectional Committee had been approved by the Civil Engineering Division Council.

- GROUPING OF CLASS LEVELS

For the purpose of this standard, the class-levels have been grouped into five categories as given in Table 1. These categories take into account the age group and the level of education to be imparted.

TABLE 1 GROUPING OF CLASS LEVELS

Sl No.	Category	Age Group	Level
(1)	(2)	(3)	(4)
		years	
i)	Pre-school	3-5	Pre-Nursery, Nursery
ii)	Primary/Junior	5-10	I to IV/V
iii)	Secondary/Middle	10-13	V to VII or VIII
iv)	Higher Secondary (Old)	13-16	VIII/IX to XI
v)	Higher Secondary (New) (Ten plus two)		
	Level (i)	13-15	IX and X
	Level (ii)	15-17	XI and XII

TABLE NO. 3

- CLASSROOMS

The basic unit of a school is classroom. The classroom, apart from satisfying the minimum requirements of space, fittings and furniture, shall be designed to meet the adequate functional and environmental requirements. The size of a classroom shall depend on the following:

a)Anthropometric dimensions of children and their space requirements;

b) Dimensions, arrangements of furniture and equipment and their incidence

c) Number of students to be accommodated;

d) Types of activities to be carried out; and e) Diverse seating arrangements essential for these activities.

The number of classrooms in a school‘ and the number of sections per class should depend upon the size and level of school and use cfhciency of spaces.

The classroom should be designed for the following number of student places:

a) Nw.w~ - 20 to 25 student places

b) Primary/Higher Secondary - 40 student places

TABLE 2 USABLE FLOOR AREA OF CLASSROOMS

(*Clause* 4.3)

Sl No.	Category	No. of Student Places per Classroom	Gross Area of Classroom in m^2 per Student Place, *Min*
(1)	(2)	(3)	(4)
i)	Pre-school	20/25	2·00
ii)	Primary/Junior		
	i) With furniture	40	1·11
	ii) With squatting	40	0·74
iii)	Secondary/Higher Secondary	40	1·26

Table 4

- ESSENTIAL CONSTRUCTIONAL REQUIREMENTS :

Height of the classroom should not be less than 3.00 m measured at any point from the surface of the floor to the lowest point of the ceiling. The minimum headroom such as under the bottom of beams, fans and lights shall be 2.6 m measured vertically under such beam, fan or light.

The proportion of the breadth (minimum dimension.) to the length (maximum dimension) of the classroom should be not more than 1 : 1.5.

Sill Heights - The sill height for classrooms with furniture arrangement should be not more than 800 mm measured from finished floor level and that for the classrooms with squatting arrangement should be not more than 600 mm.

TABLE 4 TEACHING SPACES OTHER THAN CLASSROOMS

(Clause 5.1)

Sl No.	Rooms	Distribution of Area	Total Area
(1)	(2)	(3)	(4)
		m²	m²
i)	*Physics Laboratory*		96
	a) Laboratory	65	
	b) Store-cum-preparation room	15	
	c) Teacher's space/room	8	
	d) Dark room	8	
ii)	*Chemistry Laboratory*		96
	a) Laboratory	65	
	b) Store-cum-preparation room	15	
	c) Teacher's space/room	8	
	d) Balance room	8	
iii)	*Biology Laboratory*		96
	a) Laboratory	65	
	b) Store-cum-preparation room	15	
	c) Teacher's space/room	8	
	d) Museum	8	
iv)	*Domestic Science Laboratory*		89
	a) Laboratory	65	
	b) Store	8	
	c) Teacher's space/room	8	
	d) Museum	8	
v)	*Social Science Room*	65	65
vi)	*Art Room*	65	65
vii)	*Crafts Room*	65	65
viii)	*Activity Room*	65	65
ix)	*Science Theory Room*	50	50

Table 5:

- **ADMINISTRATIVE SPACES**

Pre-school and Primary School -An area of about 10 ms may be provided for a room for headmistress/headmaster of the school.

Another area of 10 m may be provided for general storage. 7.2 Secondary and Higher Secondary Schools - The prevision of areas for the rooms for the Principal, Vice-Principal, general office, etc, shall depend upon the total enrolment in the school. The minimum areas for the various administrative purposes for two categories of enrolment number are given in Table 6 for guidance.

Principal‘s room - The size of the room for the principal of the school may be governed by the space needed for parents‘ meeting, waiting space and space for toilets.

VICE-PRINCIPALS ROOM - Generally the control of examination and records of the school is looked after by the vice-principal. The space for his room may be decided taking these factors into account. In case there is no vice-principal of the school, the area for the above function may be provided suitably. General Office -Apart from the working space for general oflice staff, it should provide space for fee collection, student‘s contact, parent‘s contact, etc.

TEACHING STAFF AREA - Staff common room which may contain facilities for lockers for all teachers, office tables and chairs, easy chairs and a separate toilet facility for staff should be provided in all secondary and higher secondary schools.

- **STUDENTS’ SPACES**

When designing a school, provision of indoor areas for student activities appropriate to the level of school as given in Table 7 shall be considered.

TABLE 6 RECOMMENDED ADMINISTRATIVE AREAS FOR SECONDARY/HIGHER SECONDARY SCHOOLS

(*Clause* 7.2)

Sl No.	Enrolment Number	Principal's Room	Vice-Principal's Room	General Office	Storage Area	Teaching Staff Area Including Staff Common Room
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		m² *Min*	m² *Min*	m² *Min*	m² *Min*	m² *Min*
1.	Up to 960	19	29	29	50	1·8 m² per teacher (for 60% of teaching staff)
2.	From 960 to 1 920	19	33	45	65	1·8 m² per teacher (for 60% of teaching staff)

Table 6:

- **CIRCULATION AREAS**

Circulation areas such as corridors, entrance halls, staircases, ctc, in the school buildings with double loaded and single loaded corridors &all not be more than 18 percent and 24 percent of the total covered area of the building respectively.

- **OUTDOOR AREAS**

Outdoor areas for a school such as playgrounds, open air assembly, parking, etc, shall depend upon the following:

a) The size of the school, and

b) The location of the school, that is: 1) Urban,

2) Suburban, or

3) Rural.

For outdoor spaces under lawns, courtyards, etc, an area of 1 n12 per student should be provided.

It is desirable to make a provision for play fields for all categories of schools. The following areas should be adequate for playing games Iike cricket, football, hockey and other Indian games:

a) Pre-School 1000 m2

b)Primary School 4 000 m2, and

C)Secondary/Higher Secondary School 15000 m2.

TABLE 7 INDOOR AREAS FOR VARIOUS STUDENTS' ACTIVITIES

(*Clauses* 8.1 *and* 8.2)

Sl No.	Room	Area	Remarks
(1)	(2)	(3) m²	(4)
i)	Common Rooms	0·1 per student (*Min* 25 m², *Max* 100 m²)	Boys common room should contain arrangements for sitting or squatting and it may be combined or be a part of canteen itself. Girls common room should contain in addition a bench or a coach for lying down
ii)	Canteen	0·1 per student (*Min* 25 m²; *Max* 100 m²)	—
iii)	NCC/ACC/Scout/ Guide	One room for each, 11·0 m² area	—
iv)	Medical Inspection Room	20 to 30	It should contain facilities such as a table, a chair, an examination bed, a medicine chest and a wash basin
v)	Book/Stationery Shop	30 to 50	—
vi)	Library	0·1 per student (*Min* 50 m²; *Max* 150 m²)	Regarding primary elements in the design of school library buildings, IS : 8338-1976* may be referred
vii)	Students' Club and House Offices	30 to 50	—
viii)	PET Room (Physical Education and Teaching Room)	45	—
ix)	Toilets	0·2 per student	Regarding provision of various fittings in toilets, Table 9 may be referred.
x)	Multiuse Hall (Optional)	0·65 per student for 50% of the strength (excluding stages) (*Min*: 14 m × 28 m × 5·5 m) (*Max*: 18 m × 36 m × 6 m)	— Without stage

*Recommendations for primary elements in the design of school library buildings.

Table 7:

It should be possible to extend the teaching areas in the open space beyond the classrooms and for this purpose such open spaces should be designed to provide for chalkboards, raised platforms and outside sitting arrangements.

- **Parking areas for the following should be provided when designing a school building:**

a) Cycles At the rate of 1.1 ms per cycle

b) Scooters 3, 3 ms per scooter

c) Cars ,> 25 ms per car

d) Buses >, 60 ms per bus

- **OVERALL AREA OF SCHOOL**

The built-up area of school and the overall area of the plot should be calculated according to provisions Table (which gives category-wise the various facilities to be provided), and building regulations. However, as a rough guide the following values may be taken when planning a school.

	For Primary School	For Secondary + Higher Secondary School	For Primary + Secondary + Higher Secondary School
a) Built-up area (on all floors) per student place:			
1) For a school having four sections per class	1·80 m²	3·40 m²	2·60 m²
2) For a school having two sections per class	1·80 m²	4·60 m²	3·20 m²
	(The area per student place will decrease when number of sections per class increase and vice-versa)		
b) Plot area other than play fields	2 to 3 times the built-up area (on all floors) depending upon the number of storeys		
c) Play fields	According to provisions in **10.3**		

Table 8

- **SET-BACK LINES –**

In the absence of local building byelaws the minimum set-backs of the building from the boundaries shall be as follows:

a) Front set-back 15 metres

b) Side set-back 6 metres

- **SELECTION OF SITE -**

While selecting the site of school buildings, the following points should be kept in mind:

a) Easy accessibility from residential areas;

b) Site should be away from heavy traffic roads, rivers, ponds, railway tracks, etc;

c) Site should be away from high tension lines;

d) The land should not be of made-up ground unless precautions have been taken for stabilization; e) Site should ensure a good natural drainage; and

f) The site should preferably be at a quiet place away from places generating noise and pollution, such as cinemas, factories and shopping centres.

- **EFFECT OF LANDSCAPE ELEMENTS**

While planning the school building, the importance of landscape elements such as open areas, to increase the comfort conditions inside the building and also in the surrounding environment, should be kept in mind.

Plants, hedges and shrubs planted immediately outside the classroom windows where such windo\vs are the principal source of natural light and ventilation should not protrude beyond the sill level.

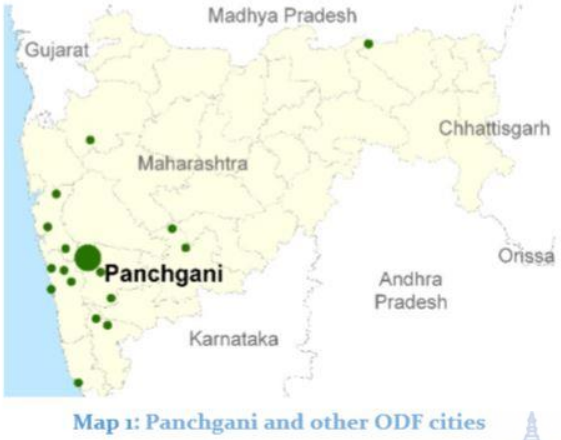
The rows of tall or shady trees should be at right angles to the source of light to the building in order to avoid glare in the rooms. At the same time the tall and shady trees, walls, or any obstruction in front of the classroom windows should be at a distance to ensure adequate amount of lighting and ventilation. This distance may be taken equal to the height of the building.

2.4 SITE SELECTION AND JUSTIFICATION

LOCATION:-

Panchgani is a hill station and class C municipal council in Satara district of Maharashtra state. This all season hill station is at an elevation of 1,305 meters above sea level.

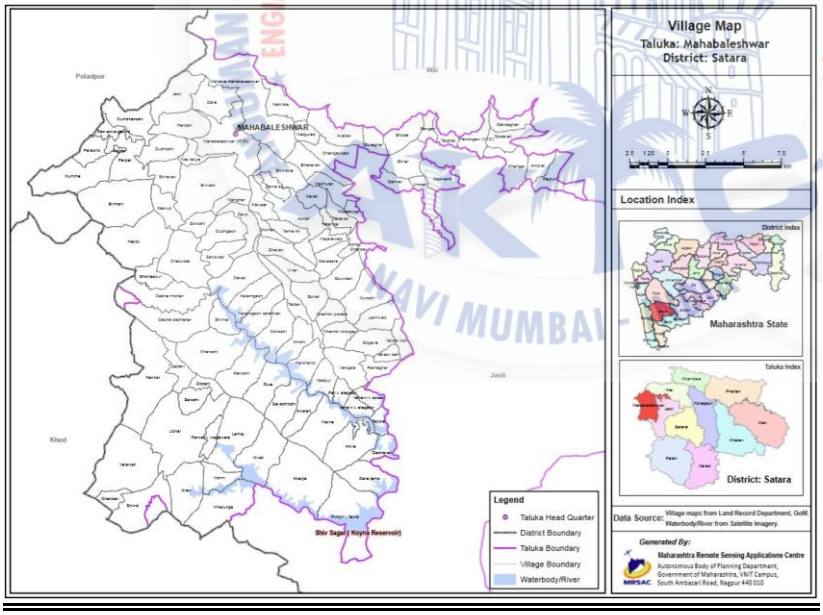
Map 1 Location of satara district in Maharashtra



map 1

Latitude- 17° 55′ 30″ N and Longitude-73° 48′ 0″ E Panchgani is located in the middle of five hills in the Sahyadri mountain ranges. The city is part of Mahabaleshwar-Panchgani Eco-Sensitive Zone declared by the Ministry of Environment and Forests, Government of India in the year 2000. (Panchgani guidebook)

Map 2 Ward map panchgani in satara district



map 2

2 HISTORY

Scenic Panchgani was discovered by the British during the colonial rule as a summer resort. The five hills surrounding Panchgani are topped by a volcanic plateau, which is the second highest in Asia after the Tibetan plateau. These plateaus, alternatively known as "table land",

are a part of the Deccan Plateau and they were raised by pressure between the earth plates. The area has high seismic activity, with an epicentre near Koynanagar. (Panchgani guidebook)

3 DEMOGRAPHICS

The population of the Panchgani city, as per Census 2011 is 14,897 persons. The Decadal growth rate is 12.18%. The density of the city is 2,434 persons per sq. km. The city comprises a huge floating population in the form of tourists. In 4 slum settlements, reside 3,850 persons which constitute 26% of the total population (PAS Project, 2016) (Census, 2011).

The scenic city is home to nearly 30 residential schools and also a major shooting location for Indian cinema. Due to it being a prominent tourist destination, the city has a high percentage of floating population.

4 MAJOR LANDMARK OF THE CITY

Panchgani Tableland

A lateritic plateau or mesa 100 acres in area and 60 metres above Panchgani town, the Panchgani 'Tableland' is a unique geomorphological feature of the region. It gives splendid views of the surrounding countryside and of the valleys below.

Reportedly, it is the only place in the region offering a 360 degree view of the entire area, particularly of the Krishna Valley. While the terrain is not suitable for the growth of trees, several rare and endemic species of plants are found on the Tableland. For some visitors, the Tableland holds religious significance, because they believe that the Pandavas spent some time there; a footprint embedded in the plateau is said to be that of one of the Pandava brothers.

JUSTIFICATION:

1) Current functions present on site are dormitories, canteen, etc
which are state of reconstruction.

2) The area needs a proper Redevelopment on micro as well as micro level.

3) the school will be proposed on this site with alternative pedagogy Considering the localites and radius till village wai.

4) maximum users will be from lower and middle class

5)background is from agriculture field and tourism.
6) in panchgani there are already hostels and schools, But these localites are not able to afford.

7)there is no school or hostel in panchgani which has a curriculum focusing on location needs itself.so propsing such idea will be helpful for both people living in community and as well as to sustain on it self in this tropical condition

ANJUMAN-I-ISLAM

A.I's Peermohamed High School (Pune)

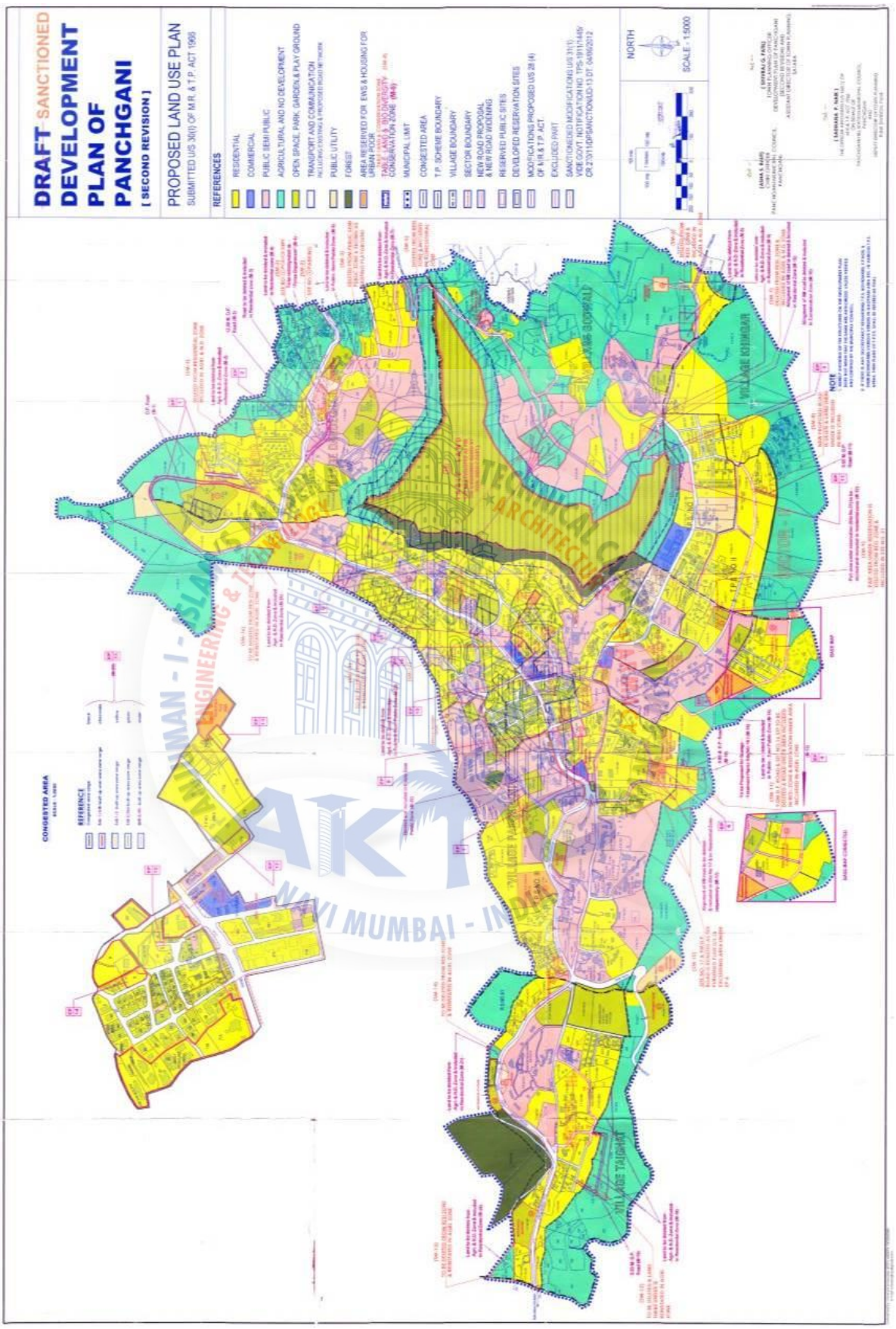
A.I's Public School , Panchgani

Information of the Institute as per clause 4(1) (b) of R.T.I. Act 2005 4(1) (b) (i)

Name of the Institute with full address	Anjuman-I-Islam Public School, Panchgani.
Name of the Head of the Institute, Email, Phone No.	Mrs. Patel Maherukh Mohammed Yunus Mobile No. 9579628603, E. mail: anjumanpanchgani@gmail.com
Functions and duties are to impart quality education and personality development of the students.	
(ii) As per MEPS Rules 1981 Schedule 'I' {Rule 22(1)}	
(iii) As per S. S. Code, MEPS rule 1981 and directions from respective authorities.	
(iv) Punctuality in attendance of Staff. Completion of syllabus in time. Regular checking of Practices, Home Works etc. Maintaining discipline, attending to grievances, complaints from Students, Parents.	
(v) MEPS Act 1971 and MEPS Rules 1977, Government Resolutions and Circulars and instructions received from Govt., Director of Education and Zonal Education Inspectors from time to time.	
(vi) As per SS Code Annexure 15 (Rule 3.2(11) And 83)	
(vii) Holding meetings of Parent Teacher Association. Holding discussions at the time of 'Open House'. Interaction with Parents, Social Workers, and representatives of Local Bodies.	
(viii) School Management Committee	Mr. Hamid Bepari Mr. Pramod Nilkam Mr. Noor Mohammed Mr. Kadir Shaikh
Academic Council	Mr.Hamid Bepari, Sr.Master Mrs.Maherukh Patel, Asst.Teacher Mr.Quadir Sayed,Asst.Teacher
(Name of the Board) constituted for various schools	BOARD FOR DARUL ULOOM TRUST
Parent Teacher Association	
Meetings of the above bodies are held regularly and minutes are prepared which are meant for Internal Circulation only.	
(ix) (x) Directory of Employees and remuneration	Salary Sheet attached
(xi) Not Applicable	
(xii) Not Applicable	
(xiii) Not Applicable	
(xiv) Available on Website www.anjumanislampublicschool.com	
(xv) Not Applicable	
(xvi) Name of the Head of Institutions, Designation H.M/ Principal P.I.O.	Mrs. Patel Maherukh Mohammed Yunus
(xvii) Not Applicable	

Table 7,8

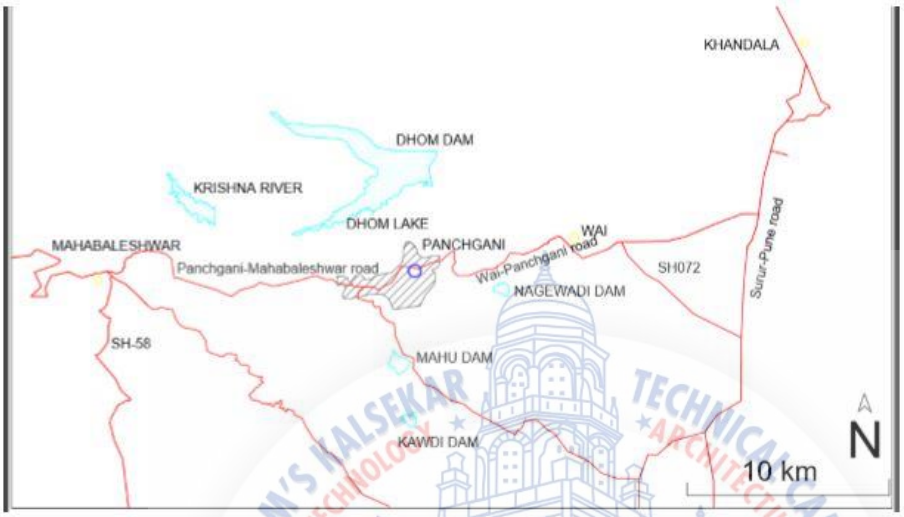
Sr. No.	Particulars	Total Nos.
1	Secondary School	20
2	Primary Schools	15
3	Pre-Primary Schools	15
4	Jr. Colleges	10
5	Degree Colleges	12
6	Polytechnics	4
7	Other Institutes	10
8	Hostels	2
9	Sahara Units	2
10	Orphanages	3
11	Proposed Institutions	2



Map3 (source: panchgani municipal corporation)Site is marked in Public semi public zone

CITY BOUNDARY MAP-

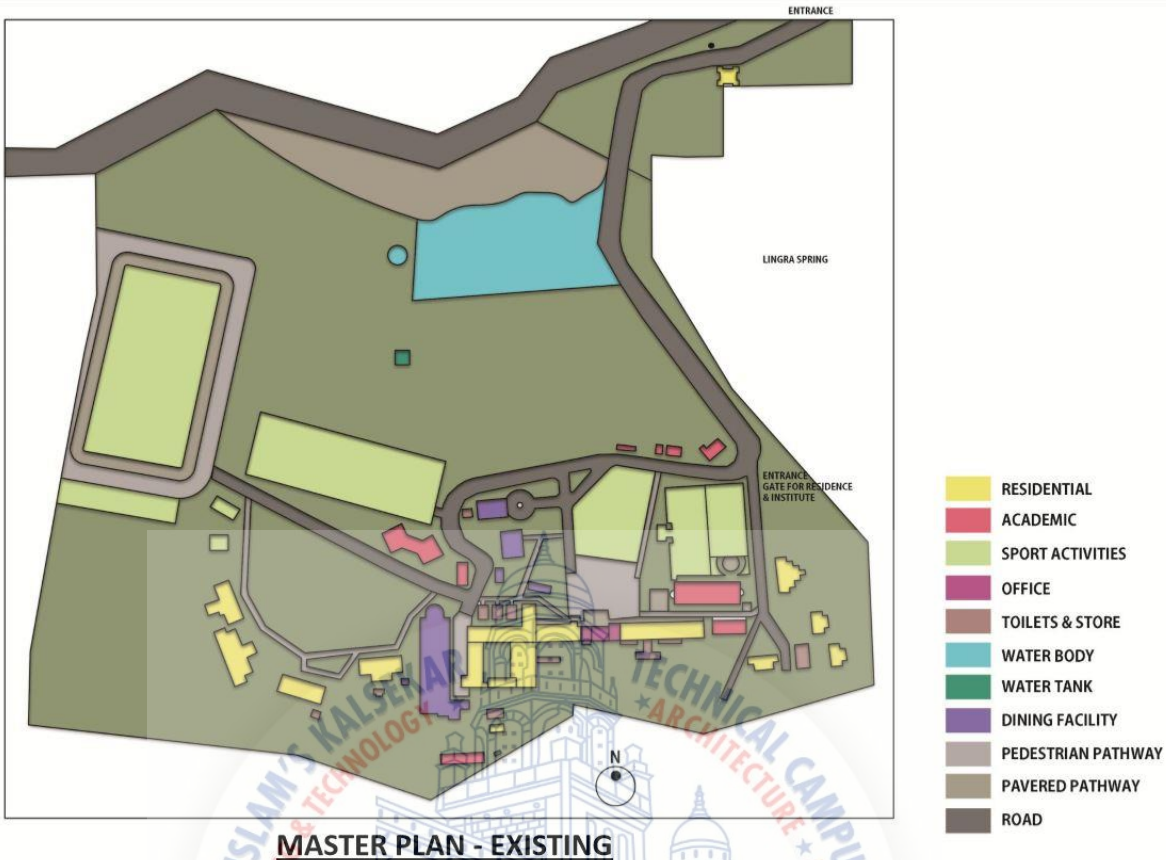
10 KM There are five villages around the Pachgani are Dandeghar, Khingar, Godwali, Amral & Taighat. The Krishnā River flows nearby which made the lake of Dhom Dam on the Krishna 9 km from Wai. It comprises an area of 6.12 Sq. Km. BOUNDARIES:- The distances of Panchgani from major cities are as follows: From Mumbai - 285 km, From Pune - 100 km From Mahabaleshwar - 18 km, From Satara - 45 km & From Wai - 10 km.



map 4 location plan

map 5 neighbourhood plan

map 5 neighbourhood plan
map 5 neighbourhood plan
map 5 neighbourhood plan



map 6 site plan

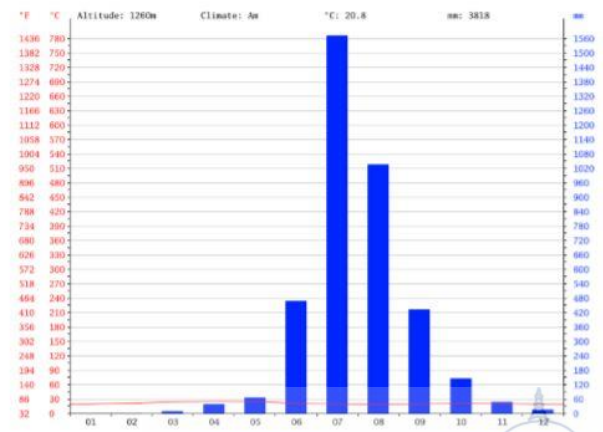
SCOPE:

- There is so much scope in above site
- Master planning all other facilities and main structure school zoned properly on site.
- Rest all structures can be properly zoned sector wise.
- The Anjuman I Islam trust are need to improvise and get new curriculum as their aim was always being Exuberant in curriculum. Bringing new for the community and helping minorities in education.

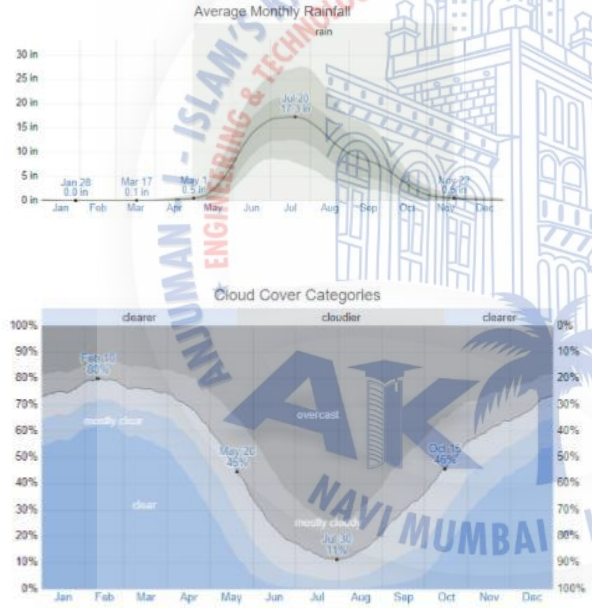
CLIMATOLOGY

Rainfall

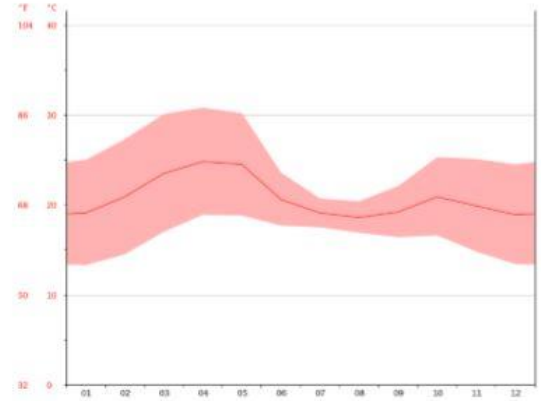
This



city has a tropical climate. Rainfall is significant most months of the year, and the short dry season has little effect. **The average annual temperature is 20.8 °C** in Panchgani. The rainfall here averages 3818 mm. Pānchgani experiences *extreme* seasonal variation in monthly rainfall. The least amount of rainfall occurs in January. Most of the precipitation here falls in July, averaging 1573 mm.



TEMPERATURE GRAPH PANCHGANI

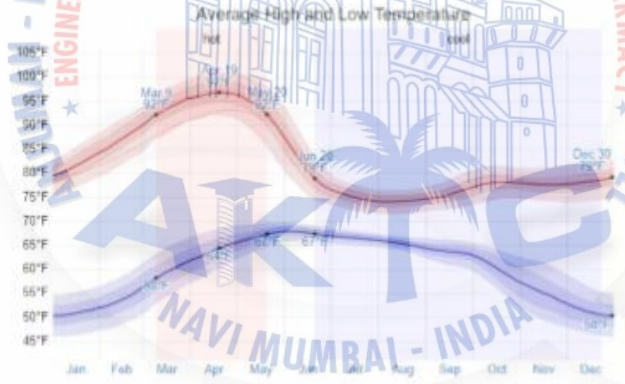


The temperatures are highest on average in April, at around 24.8 °C. August is the coldest month, with temperatures averaging 18.6 °C.

PANCHGANI CLIMATE TABLE // HISTORICAL WEATHER DATA

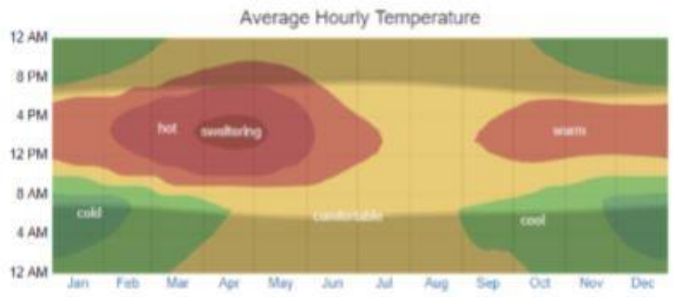
	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	19.1	20.9	23.5	24.8	24.5	20.6	19.1	18.6	19.2	20.9	19.9	18.9
Min. Temperature (°C)	13.3	14.5	17	18.9	18.8	17.7	17.5	16.9	16.4	16.6	14.8	13.4
Max. Temperature (°C)	25	27.3	30.1	30.8	30.2	23.6	20.7	20.4	22.1	25.3	25.1	24.5
Avg. Temperature (°F)	66.4	69.6	74.3	76.6	76.1	69.1	66.4	65.5	66.6	69.6	67.8	66.0
Min. Temperature (°F)	55.9	58.1	62.6	66.0	65.8	63.9	63.5	62.4	61.5	61.9	58.6	56.1
Max. Temperature (°F)	77.0	81.1	86.2	87.4	86.4	74.5	69.3	68.7	71.8	77.5	77.2	76.1
Precipitation / Rainfall (mm)	0	0	9	35	66	466	1573	1034	430	145	45	15

In Pānchgani, the wet season is warm, oppressive, windy, and overcast and the dry season is hot and mostly clear. Over the course of the year, the temperature typically varies from *50°F* to *97°F* and is rarely below *46°F* or above *101°F*.



The daily average high (red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. The thin dotted lines are the corresponding average perceived temperatures.

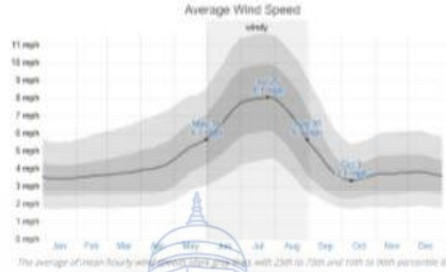
The figure below shows you a compact characterization of the entire year of hourly average temperatures. The horizontal axis is the day of the year, the vertical axis is the hour of the day, and the color is the average temperature for that hour and day.



The average hourly temperature, color coded into bands: frigid < 15°F < freezing < 32°F < chilly < 45°F < cold < 55°F < cool < 65°F < comfortable < 75°F < warm < 85°F < hot < 95°F < sweltering. The shaded overlays indicate night and civil twilight.

Wind

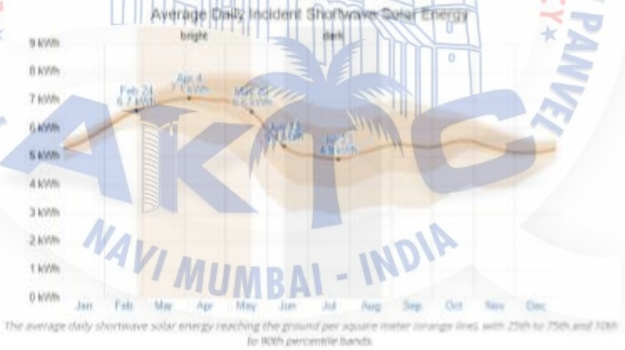
This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly dependent on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages.The average hourly wind speed in Pānchgani experiences significant seasonal variation over the course of the year.



Solar Energy

This section discusses the total daily incident shortwave solar energy reaching the surface of the ground over a wide area, taking full account of seasonal variations in the length of the day, the elevation of the Sun above the horizon, and absorption by clouds and other atmospheric constituents. Shortwave radiation includes visible light and ultraviolet radiation.

The average daily incident shortwave solar energy experiences *some* seasonal variation over the course of the year.



Topography

The topography within *2 miles* of Pānchgani contains *very significant* variations in elevation, with a maximum elevation change of *1,896 feet* and an average elevation above sea level of *3,512 feet*. Within *10 miles* contains *very significant* variations in elevation (*2,638 feet*). Within *50 miles* contains *large* variations in elevation (*4,757 feet*).

The area within *2 miles* of Pānchgani is covered by *cropland* (*68%*), *grassland* (*13%*), and *trees* (*12%*), within *10 miles* by *cropland* (*66%*) and *trees* (*15%*), and within *50 miles* by *cropland* (*64%*) and *trees* (*14%*).

3. CONCLUSION

- The project will make sure to fulfill all the basic need to make a school environment joyful and interactive.
- Climatic condition will be taken care of, the aim will be to design a self sustaining building which will be adaptable to the environment.
- This project will ensure the increase in intake of students due to its newly designed curriculum .
- Innovation in education , vocational training like art forms and tourism which will help people to sustain with in the context.
- The project will also attract tourist because of its uniqueness and transition between students and tourists.
- All age groups will have transitional spaces within campus for interaction and learn from others.
- As soon as the curriculum opens up , we can see the possibility of change is spaces, accepting new challenges and social spaces could increase.

TENTATIVE ARCHITECTURALSPACE PROGRAMME

SR. NO	SPACES	SUB SPACE	NO. OF SUB SPACE	NO. OF USERS	Min. ROOM SIZE	AREA m2	QUALITY OF SPACE	TYPE OF SPACE
A.	PRE PRIMARY	CLASSROOM						
		PLAYGROUP	2	25	70	140	SEMI-OPEN	PRIVATE
		NURSERY	2	25	70	140	SEMI-OPEN	PRIVATE
		KINDERGARTEN	2	25	70	140	CLOSED	PRIVATE
		LIBRARY/ RESOURCE CENTRE	1	20% STUDENTS	100	100	CLOSED	PUBLIC
		READING ROOM	1		50	50	SEMI-OPEN	PUBLIC
		BOOK SECTION	1		15	15	SEMI-OPEN	PUBLIC
		STORY TELLING AREA	1		30	30	OPEN	PUBLIC
		STAFF AREA	1		10	10	CLOSED	PRIVATE
		STORAGE	1		15	15	CLOSED	PRIVATE
		ARTS AND CRAFTS ROOM	1		50	50	SEMI-OPEN	PUBLIC
		MUSIC ROOM	1		50	50	CLOSED	PUBLIC
		AV ROOM	1		50	50	CLOSED	PUBLIC
		DANCE DRAMA ROOM	1		70	70	SEMI-OPEN	PUBLIC
		SELF SERVING KITCHEN	1		30	30	CLOSED	PUBLIC
						890		
		ADMINISTRATIVE						
		STAFF ROOM+STORE	1		55	55	CLOSED	PRIVATE
		STAFF TOILET	1		12	12	CLOSED	PRIVATE
		COORDIANTOR ROOM	1		20	20	CLOSED	PRIVATE
		MEDICAL ROOM	1		20	20	CLOSED	PRIVATE
		SUPPORT/ STAFF						
		DORM	3		20	60	CLOSED	PRIVATE
		TOILET	2		37	74	CLOSED	PRIVATE
		TOILET FOR DISABLES	2		3	6	CLOSED	PRIVATE
		JANITOR ROOM	2		1.6	3.2	CLOSED	PRIVATE
		STORE	1		6	6	CLOSED	PRIVATE
		PANTRY	1		6	6	CLOSED	PRIVATE
						262.2		
	TOTAL BUILT UP AREA					1152.2 SQM		

SR. NO	SPACES	SUB SPACE	NO. OF SUB SPACE	NO. OF USERS	Min. ROOM SIZE	AREA m2	QUALITY OF SPACE	TYPE OF SPACE
B	PRIMARY AND MIDDLE	CLASSROOM						
		1	4	25	60	240	CLOSED/SEMI	PRIVATE
		2	4	25	60	240	CLOSED/SEMI	PRIVATE
		3	4	25	60	240	CLOSED/SEMI	PRIVATE
		4	4	25	60	240	CLOSED/SEMI	PRIVATE
		5	4	25	60	240	CLOSED/SEMI	PRIVATE
		6	4	25	60	240	CLOSED/SEMI	PRIVATE
		7	4	25	60	240	CLOSED/SEMI	PRIVATE
		8	4	25	60	240	CLOSED/SEMI	PRIVATE
		ARTS ROOM	2		108	216	SEMI-OPEN	PRIVATE
		MATERIAL STORAGE	2		13.5	27	CLOSED	PRIVATE
		MUSIC ROOM	3		70	210	CLOSED	PRIVATE
		DRAMA/DANCE ROOM	1		70	70	SEMI-OPEN	PRIVATE
		SCULPTURE AND MODELLING ROOM	1		100	100	SEMI-OPEN	PRIVATE
		CARPENTRY WORKSHOP	1		70	70	CLOSED	PRIVATE
		PROJECT WORK ROOM	1		70	70	SEMI-OPEN	PRIVATE
						2683SQM		
		ADMINISTRATIVE						
		STAFF ROOM+STORE	4		40	160	CLOSED	PRIVATE
		STAFF TOILET	4		12	48	CLOSED	PRIVATE
		COORDINATOR ROOM	4		20	80	CLOSED	PRIVATE
		SUPPORT/ STAFF						
		TOILET	8	M-4,F-4	25	200	CLOSED	PRIVATE
		TOILET FOR DISABLES	6		2.6	15.6	CLOSED	PRIVATE
		JANITOR ROOM	3		1.6	4.8	CLOSED	PRIVATE
		DRINKING FOUNTAIN	4		2.8	11.2	CLOSED	PRIVATE
		STORE	4		6	24	CLOSED	PRIVATE
		PANTRY	4		6	24	CLOSED	PRIVATE
						568 SQM		

SR. NO	SPACES	SUB SPACE	NO. OF SUB SPACE	NO. OF USERS	Min. ROOM SIZE	AREA m2	QUALITY OF SPACE	TYPE OF SPACE
C	SECONDARY	CLASSROOM						
		9	4	30	70	210	CLOSED/SEMI	PRIVATE
		10	4	30	70	210	CLOSED/SEMI	PRIVATE
		11	4	30	70	210	CLOSED/SEMI	PRIVATE
		12	4	30	70	210	CLOSED/SEMI	PRIVATE
						840SQM		
		AV ROOM	1		80	80	CLOSED	SEMI-PUBLIC
		PHYSICS LAB	2		160	320	CLOSED	SEMI-PUBLIC
		CHEMISTRY LAB	2		160	320	CLOSED	SEMI-PUBLIC
		BIOLOGY LAB	2		160	320	CLOSED	SEMI-PUBLIC
		HOME SCIENCE LAB	2		160	320	CLOSED	SEMI-PUBLIC
		ARTS ROOM	1		108	108	SEMI-OPEN	SEMI-PUBLIC
		MATERIAL STORAGE	2		22.5	45	CLOSED	SEMI-PUBLIC
		MUSIC ROOM	1		100	100	CLOSED	SEMI-PUBLIC
		DANCE ROOM	1		100	100	SEMI-OPEN	SEMI-PUBLIC
		WORKSHOP ROOM	1		100	100	SEMI-OPEN	SEMI-PUBLIC
		PROJECT WORK ROOM	1		100	100	CLOSED	SEMI-PUBLIC
						1593SQM		
		ADMINISTRATIVE						
		STAFF ROOM+STORE	3		40	120	CLOSED	PRIVATE
		STAFF TOILET	3		12	36	CLOSED	PRIVATE
		COORDINATOR ROOM	3		20	60	CLOSED	PRIVATE
		SUPPORT/ STAFF						
		TOILET	4		40	160	CLOSED	PRIVATE
		TOILET FOR DISABLES	1		2.6	2.6	CLOSED	PRIVATE
		JANITOR ROOM	1		1.6	1.6	CLOSED	PRIVATE
		DRINKING FOUNTAIN	2		2.8	5.6	CLOSED	PUBLIC
		STORE	2		6	12	CLOSED	PRIVATE
		PANTRY	2		6	12	CLOSED	SEMI-PUBLIC
						410SQM		
	SHARED SPACES	ADMINISTRATIVE						
		RECEPTION+ LOBBY	1		100		SEMI-OPEN	PUBLIC
		PRINCIPAL ROOM	1		40		CLOSED	PRIVATE
		VICE PRINCIPAL	1		30		CLOSED	PRIVATE
		DIRECTOR ROOM	1		20		CLOSED	PRIVATE
		OFFICE CUM STORAGE	1		30		CLOSED	PRIVATE

SR. NO	SPACES	SUB SPACE	NO. OF SUB SPACE	NO. OF USERS	Min. ROOM SIZE	AREA m2	QUALITY OF SPACE	TYPE OF SPACE
		RECORD+ ATTENDANCE	1		20		CLOSED	PRIVATE
		PANTRY	1		5.4		CLOSED	PRIVATE
		TOILET	2		11.7		CLOSED	PRIVATE
		UNIVERSAL TOILET	1		1.6		CLOSED	PRIVATE
		MEDICAL ROOM	1		20		CLOSED	SEMI-PUBLIC
		STATIONARY	1		45		CLOSED	SEMI-PUBLIC
					323.7			
	MISC.	LIBRARY/RESOURCE	1		510		CLOSED	PUBLIC
		READING ROOM	1		400		SEMI-OPEN	PUBLIC
		BOOK SECTION	1		70		CLOSED	PUBLIC
		STAFF AREA			40		CLOSED	PRIVATE
		AUDITORIUM	1		1000		CLOSED	PRIVATE
		CONFERENCE	1		200		CLOSED	PRIVATE
		LECTURE HALL	1		300		CLOSED	PRIVATE
		PRAYER AREA	1		1550		CLOSED	PRIVATE
		FACULTY CAFETERIA	1		200		CLOSED	SEMI-PUBLIC
		DINING HALL	1		1200		SEMI-OPEN/OPEN	SEMI-PUBLIC
		KITCHEN	1		162		CLOSED	PRIVATE
					4080SQM			
	SPORTS	400 M RACE TRACK	1				OPEN	PUBLIC
		ADVENTURE	10				OPEN	PUBLIC
		GYMNASIUM	1				SEMI-OPEN	PUBLIC
		BADMINTON COURT	4				CLOSED	PUBLIC
		STORE	1				CLOSED	PUBLIC

5. DESIGN BRIEF

Revamping of Anjuman-I-Islam school Panchgani.

On a macro level the site of Anjuman-I-Islam is around 1lakh sq.m which includes residential zone too. So designing the entire site in which the area can be zoned out efficiently. The landuse of this site are already comes under Institute area.

The project focuses on improving, the current scenario of Anjuman-I-Islam school by reworking on curriculum as well as the infrastructure. Also upgrading the school as a community space for minority people living on the existing site, and farmers community living in near by villages.

Incorporate the art forms present in Mahabaleshwar, Panchgani as brass and stone workshop which can attract tourists as well as it can be part of curriculum which help these arts forms to grow and not extinct.

The structure should be accessible for disable people, it should be barrier free design, Site with existing contours it can be challenging.

- Free- open learning experiences, and project based learning.
- Function/Subjects zoned in such a way to enhance the curiosity of children.
- Climatic response as panchgani experiences extreme climate.
- Using local material for construction like Laterite Stone. Etc.
- Desiging the structure to sustain on itself.
- It should be socially active complex w.r.t. tourist, community and students.

6. LIST OF FIGURES

7. LIST OF TABLE

8. LIST OF MAPS

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