Embracing Hidden Sagas from Timeline: Tapping the Gurukul Legacy in Contemporary Template

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Abstract

The Gurukul system was a traditional residential educational system in ancient India where students lived and learned with a guru (teacher). Their learning curve revolved around the philosophies what his guru believed and preached. It emphasized holistic development, combining academic learning with moral and spiritual growth. This system played a significant role in shaping the educational landscape of ancient India and its influence continues to be felt in modern educational philosophies. The Guru Shishya Parampara or the 'teacher-student tradition' is an aspect where Guru embeds the traditional learnings in his own unique ways and philosophies. It's a spiritual and intellectual bond, emphasizing the holistic development of the student by his mentor. This research work examines how the architectural essence of the traditional Indian Gurukul system can be meaningfully integrated into contemporary educational environments. The Gurukul, with its emphasis on silence, connection to nature, and the intimate bond between teacher and student, created learning spaces that supported not only intellectual development but also emotional and spiritual growth. In contrast, modern educational settings often prioritize technology, efficiency, and flexibility, sometimes at the cost of depth and presence. The paper intends to explore how spatial elements—such as hierarchy, sensory quality, and environmental integration—can be used to create educational spaces that evolves from both the systems. The intention is to understand how architecture can bridge the reflective, immersive learning of the Gurukul and gel with the multi-functional dynamics of contemporary education.

Keywords – *Gurukul, Contemporary Education, Spatial Design, Learning Environments.*

Introduction –

Education is shaped not only by what is taught but also by where and how learning happens. The traditional Indian Gurukul system, with its emphasis on silence, close teacher-student relationships and deep connection to nature, created holistic environments that nurtured intellectual, emotional and spiritual growth. In contrast, modern educational spaces tend to prioritize technology, flexibility, and efficiency to meet contemporary pedagogical needs. This contrast raises an important question: how can architectural design bridge the qualities of Gurukul learning with the dynamic demands of the present day education system ?

This question becomes especially relevant considering the National Education Policy (NEP) 2020, where the Ministry of Education envisions an education system that is both rooted in Indian culture and open to modern advancements. The policy encourages integration of

traditional knowledge systems with contemporary practice to support well-rounded development. However, there is a noticeable gap between this vision and how it is being interpreted and implemented in some schools today.

Several institutions across India now claim to follow both traditional and modern approaches, with CBSE, ICSE or state boards affiliations with the inclusion of certain cultural rituals. But often, this integration is only surface level and mostly cosmetic. For instance, some schools perform daily morning Havan in the name of Gurukul-style learning yet offer no lessons on Vedic texts or follow traditional philosophies of Upanishads. Their physical environments remain entirely modern, with no attempt to bring in the architectural qualities like open courtyards, penetrating natural lights, shaded verandas or nature-based learning zones etc – these once defined the Gurukul experience. If Gurukul-inspired education is reduced to just ritual without reflecting its true essence in pedagogy and space, the spirit of the NEP is misinterpreted.

This research explores how architectural elements like spatial hierarchy, materiality, sensory experience, and environmental integration can help build a learning environment that genuinely blend the ethos of Gurukul traditions with the needs of contemporary education.

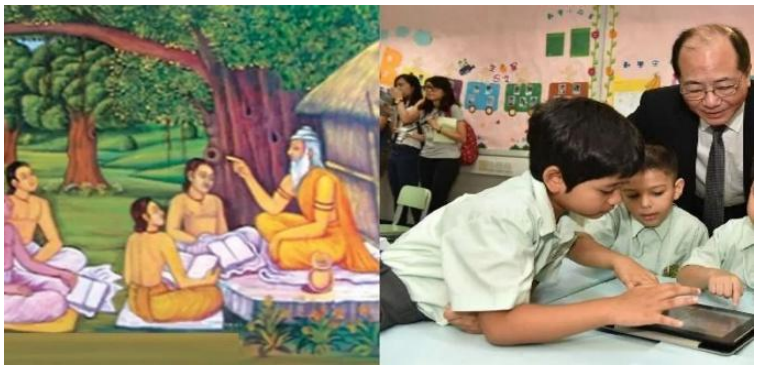

Fig. Possible transition of Gurukul system in Contemporary layout.

Objectives –

- Comprehension of philosophies, principles and pattern of the Gurukul system of education – it's the learning environments, spatial characteristics vis a vis design approaches of contemporary educational institutions in India.
- Interpretation of the National Education Policy (NEP) 2020 especially its vision towards integrating traditional and modern system of education – delineate the interfaces that can reform and transform the Indian education system.
- Documentations of limitations in the present school design models that claim to follow both systems but falls short to embrace the Gurukul ethos in space and pedagogy - both by statistical representation and graphical methods.
- Formulation of architectural design philosophies with interventions that blends Gurukul-inspired learning system with contemporary educational needs - creating spaces that support holistic aspect of modern education.

Methodology –

- The research follows a qualitative, theoretical and descriptive approach which penetrates through the stories and tales in secondary data.
- Study of philosophies and spatial patterns of the Gurukul system through literature review to understand and assess its learning environment.
- Interpreting the National Education Policy (NEP) 2020 to extract educational goals and translate them into architectural needs.
- Identify limitations and shortcomings of the present school designs through documented observations and theoretical discussions.
- Formulation of architectural strategies and design guidelines tailored that blend traditional Gurukul principles with contemporary educational needs.

Origins and Relevance of Gurukul system –

The Gurukul system of education is one of the earliest and most respected models of learning in India. Rooted in the Vedic period, it was a system where the student (*shishya*) would live near the teacher (*guru*), often in the teacher's home or hermitage, known as the *gurukul*. Education was not confined to classrooms or blackboards. Instead, it was life-centered and experience-based, focusing equally on academics, discipline, values and practical knowledge. This system evolved naturally within the socio-cultural and philosophical context of ancient India, where learning was considered a sacred process. The teacher was both a guide and a role model, and learning was seen as a lifelong journey, not restricted by age or rigid stages. Subjects included the Vedas, languages, mathematics, astronomy, philosophy, medicine, music, martial arts, and more, and were taught through oral tradition, storytelling, debate, observation and active participation.

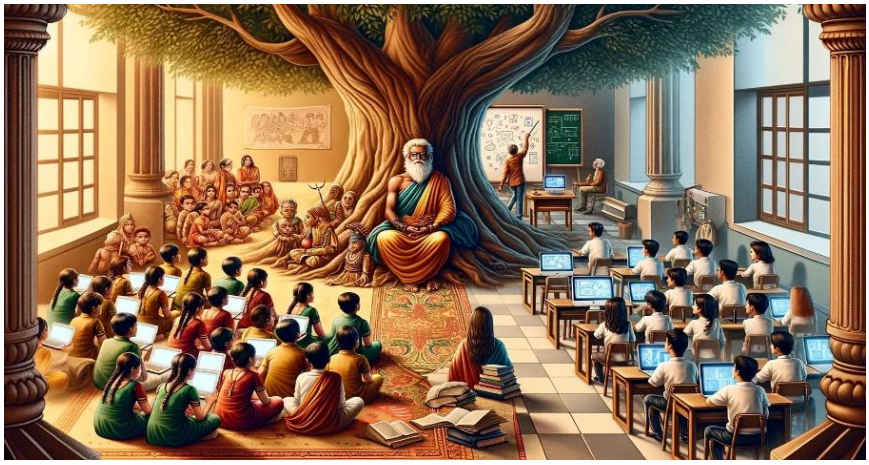

Fig. Gurukul system vs modern system of education.

Over time, especially during the colonial period, the traditional Gurukul system was replaced by formal, westernized education models introduced by the British. These emphasized written examinations, rote learning, fixed curriculum and centralized institutions. As a result, the

definition of a Gurukul shifted. In contemporary times, many institutions that call themselves Gurukuls are often limited to religious or Sanskrit studies, lacking the holistic, multi-disciplinary and experiential approach of the original system.

Benefits of the Traditional Gurukul System –

The Gurukul system offered several meaningful insights on varied aspects. They were all about inculcation of values added into daily life. The conventional education system aimed at development of one's personality with topics that were relevant in practical life.

- Personalized mentorship: Small teacher-to-student ratios allowed for individual attention and stronger emotional and intellectual guidance.
- Holistic development: Emphasis on moral values, physical well-being, mental clarity and emotional balance alongside academic knowledge.
- Learning by doing: Students participated in daily chores, rituals and community life, promoting independence and responsibility.
- Connection with nature: Set in natural surroundings, the environment itself became a teacher, enhancing sensory awareness and mental well-being.
- Value-driven education: Respect for elders, truthfulness, humility, and self-discipline were embedded into the learning process.

Present Condition of Gurukuls in India –

Today, very few traditional Gurukuls remain functional, but they often lack recognition from formal education boards and are isolated from technological or professional advancements. As a result, the Gurukul is largely absent from modern Indian schooling, except in symbolic or spiritual contexts.

Need to Revisit and Revive the Gurukul Ethos –

Reintroducing the Gurukul system in its ancient form may not be practical in today's fast-paced, digitally driven world. However, bringing back the principles and spatial logic of the Gurukul system is both timely and necessary. The National Education Policy (NEP) itself emphasizes flexible learning, holistic development, skill-based education and cultural rootedness - all of which resonate strongly with the Gurukul approach. Reimagining schools as spaces that support community learning, environmental sensitivity, emotional well-being and reflective thinking is crucial in addressing the limitations of today's education. Thus, rather than returning to the past, the goal should be to integrate the core values of the Gurukul system with modern pedagogical and architectural innovations, creating spaces that nurture both intellect and character.

Resemblances and Differences -

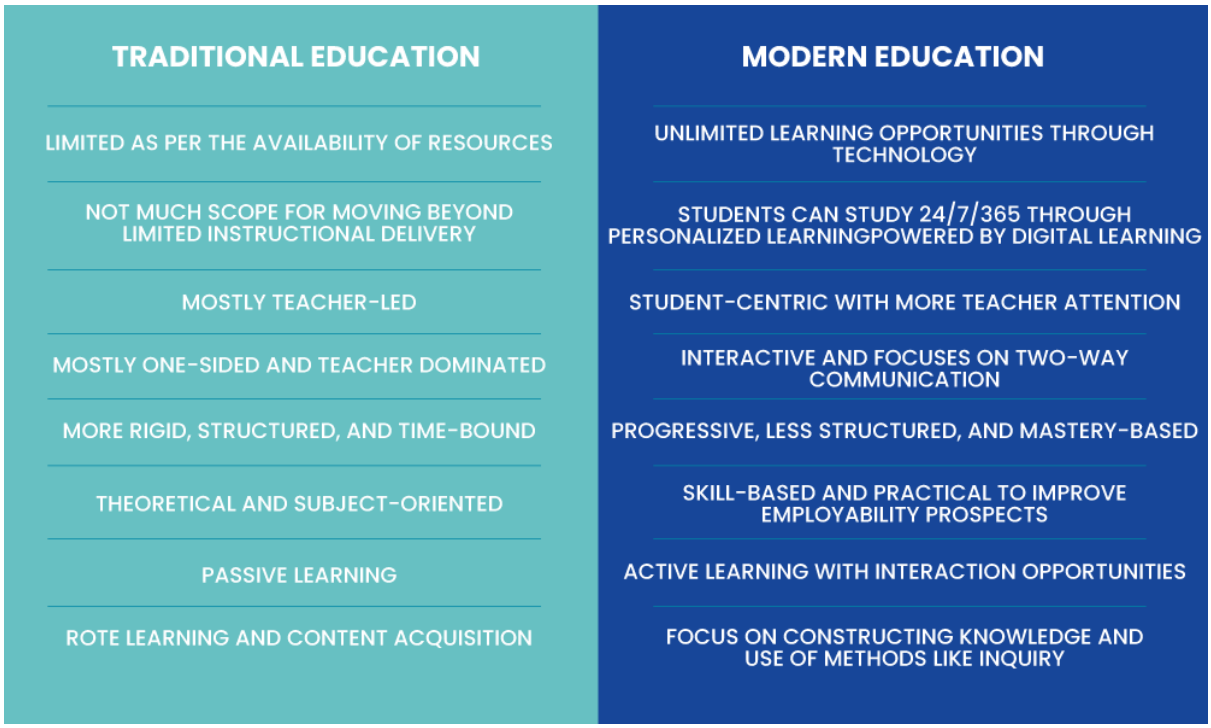

Fig. Resemblances and Differences in Traditional and Modern Education System.

Incorporating Gurukul System in Contemporary School Design –

The Gurukul system of education, one of the oldest learning traditions in India. Here, students lived with their teacher in a quiet natural setting, usually away from families and all distractions. Education in this system was not limited to books or classrooms. Instead, students learned through observations and long sessions with their guru. It was a way of life where learning was continuous and connected to nature and surroundings. Learning was often unstructured, and emphasis was on moral, spiritual, physical and intellectual growth.

Spatially, Gurukuls were designed not as institutions, but as ecosystems. Architecture in a Gurukul was simple and close to nature. Learning happened under trees, in open courtyards, near rivers, or under the shade of thatched verandas. There were no fixed classrooms, no blackboards and no bells. Spaces were fluid, allowing both physical and mental freedom. Students helped in daily tasks like cooking, cleaning, collecting firewood and farming, which taught them responsibility and life skills. The learning environment was calm, silent, and rooted in natural surroundings,

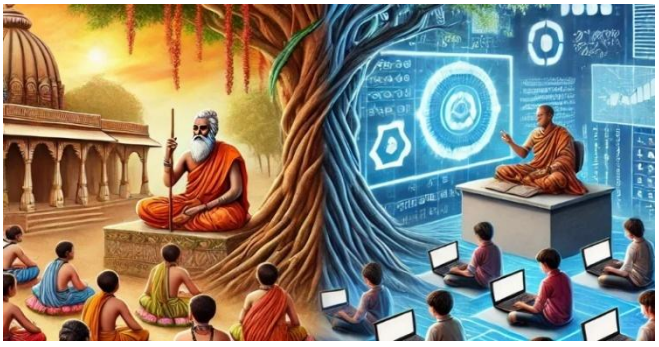

Fig. A projected pedagogy of translation.

helping students concentrate, reflect and build a deep bond with their teacher and their inner self. The boundaries between spaces for learning, living, meditating, or playing were fluid, nurturing an integrated lifestyle of education. Architecture in the Gurukul was about simplicity, sensory richness and environmental integration.

In contrast, modern schools — especially those based on the British model — are highly structured. Students are grouped by age and learning is divided into subjects and periods. Classrooms are enclosed, often with rows of desks and a single board at the front. There is little space for informal conversation or personalized learning. Most modern school buildings look similar, with fixed corridors, staircases and rooms arranged in a grid. The design is focused on control, discipline and efficiency rather than creativity or emotional growth. Children in modern schools often feel pressure to perform and the environment can sometimes become stressful. Spaces are rarely designed to support natural light, fresh air, or quiet corners for reflection. Even playgrounds are limited to certain times and activities. The architecture of these schools reflects a system that values order and standardization over exploration and self-paced learning.

There are also psychological differences in how students experience these two systems. In Gurukuls, the informal setup and close connection with the guru created a safe and emotionally rich learning environment. The students were not just taught knowledge but were guided to discover their inner strengths, learn values and live in harmony with their surroundings. In contrast, modern school spaces can often feel impersonal. Teachers and students may not share deep relationships due to the rigid structure and the constant rush to finish the syllabus.
In summary, the Gurukul system offered a calm, slow and holistic environment, while today's schools often offer speed, structure and information overload. Both have their strengths. The Gurukul system focused more on character, discipline and life-based learning, while modern schools aim to provide wide exposure to global knowledge and technology. The challenge — and opportunity — is to bring the best of both systems together. Architecture plays a vital role in doing this by shaping the spaces in which students live, learn, and grow.

Parameter	**Gurukul**	**Contemporary Schools**
Learning Relationship	Guru-shishya (mentorship-based)	Teacher-student (hierarchical, structured)
Environment	Natural, immersive, open	Built, enclosed, climate-controlled
Learning Method	Dialogic, experiential	Textbook-based, examination-centric
Space Design	Flexible, informal, integrated with nature	Compartmentalized, functional, rigid
Role of Architecture	Facilitates lifestyle and learning simultaneously	Segregates learning from living and social life

This comparison forms the basis for questioning the current trajectory of school design in India and how architectural innovation can enable a more integrated model.

NEP 2020 and its Interfaces with Traditional Systems -

The National Education Policy (NEP) 2020 marks a major shift in how education is seen and delivered in India. It moves away from a rigid, exam-focused system toward one that encourages holistic development, flexible learning and respect for Indian traditions. This policy does not directly mention the Gurukul system, but many of its principles echo the Gurukul philosophy — such as learning from life, valuing moral and emotional growth, and maintaining a strong connection with nature and community. One of the biggest goals of NEP 2020 is to make learning child-centred and joyful. It encourages schools to go beyond textbooks and focus on understanding, creativity and curiosity. To support this, the policy talks about reducing the burden of exams, introducing more experiential and project-based learning and allowing students to explore their individual areas of interests. These ideas align well with how the Gurukul system worked, where learning was informal, integrated into daily life and guided by the natural pace and interest of the learner.

NEP 2020 also promotes multilingual education, local knowledge system, regional crafts and skills in the curriculum. The intention is to bring in elements of traditional Indian wisdom, such as ayurveda, music, yoga, storytelling and so on embedded in modern structure of education. Another major point in NEP 2020 is the focus on socio-emotional learning, mental health, and well-being. It talks about building strong teacher-student relationships, encouraging self-awareness, and creating school environments where children feel safe and motivated. This vision is very close to the Gurukul system, where the teacher or ‘Guru’ was also a mentor and guide, not just someone who delivered academic content.

Architectural Interpretation –

From a design perspective, this shift in education needs learning spaces that are flexible, open and emotionally supportive. Fixed, box-like classrooms may no longer be enough. Instead, schools need spaces that allow interaction, creativity, quiet reflection and connection with nature. Learning beyond the classroom, which makes architecture a key tool in achieving this vision. Outdoor learning areas, gardens, workshops and open verandas can become learning zones, not just recreational ones.

Additionally, NEP 2020 encourages inclusion and equity making sure every child, no matter their background or ability, feels welcome and valued in the school environment. Architectural design can support this by creating barrier-free spaces, with universal design elements. Ample community-friendly zones involving parents, elders, and locals in the learning process.

To sum up, NEP 2020 supports a blend of traditional and modern education not just in content, but also in spirit. It encourages learning that is rooted, reflective, and relevant, which opens the door to a new kind of school design — one that honours India's educational heritage while preparing children for the future. Architecture plays an essential role in making this blend a reality by providing spaces that nurture both mind and heart.

The alignment between NEP 2020 and Gurukul philosophies -

NEP 2020 Vision	Gurukul Principle	Architectural Translation
Multidisciplinary & experiential learning	Integration of values, skills, and arts	Flexible classrooms, learning gardens, outdoor studios
Local & cultural relevance	Context-based learning and living	Use of regional materials, vernacular forms, cultural motifs
Flexible and personalized education	One-on-one mentorship	Modular spaces, teacher-student retreat rooms
Value and ethical learning	Integral to daily life	Meditation halls, storytelling circles, temples or shrines
Integration with nature	Nature as co-educator	Forest trails, edible gardens, open-air classrooms

Thus, the architectural language of future schools must be responsive, not prescriptive — allowing a diversity of pedagogical approaches to coexist and evolve.

Limitations in Current School Design Models –

Many educational institutions today claim to incorporate both modern and traditional values in their curriculum and environment. However, a closer observation reveals that this integration is often superficial. While the façade or naming may reflect traditional imagery, the spatial layout, material palette, and daily rhythms remain indistinguishable from mainstream CBSE or ICSE schools.

Such schools tend to preserve rigid classroom layouts, strictly defined circulation, and compartmentalized functions. The absence of transitional and flexible spaces — such as shaded verandas, outdoor nooks, or informal gathering zones — limits opportunities for spontaneous dialogue, personal reflection and multisensory engagement. Moreover, silence and solitude, which were integral to the Gurukul lifestyle, are rarely addressed as a spatial requirement in modern designs.

Key problems in present day school designs –

- **No connection with nature:** Windows are small, and green spaces are limited or unused.
- **Rigid classrooms:** Most rooms are box-like in a high rise forbids to be changed.
- **Lack of silence:** No spaces for students to think or be by themselves.
- **Linear movement:** Corridors only allow walking - no space to pause or interact.
- **No local or cultural touch:** All schools often feel the same, no matter where they are.
- **Stiff and Inflexible:** Too much regimental and follows a predictable mode of functioning.

Architectural Strategies for Blended Learning Spaces -

The final objective of the research is to outline architectural strategies that respond to both the ethos of the Gurukul legacy and the aspirations of NEP 2020. This requires a rethinking of the school as not merely a building, but as a living campus - an environment that teaches as much through its design as through its curriculum. Creating a school that blends traditional and modern education systems requires more than just adding subjects or changing textbooks. The physical space - the architecture - must also support this new way of learning. In many ways, space becomes the third teacher, shaping how students feel, interact and learn.

This section outlines key design ideas that can help create such environment -

Spatial Hierarchy -

Traditional Gurukul settings often followed an implicit spatial hierarchy beginning with the openness of the natural surroundings and gradually transitioning to more focused zones for study and contemplation. The guru's space was generally modest but held a central position, symbolizing wisdom and trust rather than authority. In modern learning environments, spatial hierarchy must accommodate multiple modes of learning: group discussions, independent study, digital engagement and reflection. Layering of spaces from active to quiet zones allows students to navigate different cognitive and emotional states. A clear hierarchy in space design can support both pedagogical clarity and intuitive movement.

Flexible and Multi-Use Spaces –

Instead of traditional classrooms that are rigid and function-specific, new schools should have flexible spaces that can easily transform based on need. A room might be used for discussion in the morning, group activity in the afternoon and storytelling in the evening. Movable partitions, open seating and built-in platforms can support this flexibility. This allows both structured lessons and open, free-flowing dialogue to happen in the same space.

Integration with Nature –

In the Gurukul system, learning happened outdoors under trees, near water bodies, or in verandas. Bringing natural elements into school design has proven psychological benefits, such as reduced stress, better focus and emotional well-being. Courtyards, shaded walkways, tree clusters, mud or earthen floors, gardens and open-air classrooms can recreate this connection with nature. These spaces can also be used for yoga, meditation, or informal teaching, supporting both mental and physical health.

Fig. Nature study space.

Zones for Silence, Reflection and Mindfulness –

Modern schools often overlook the importance of quiet spaces, while Gurukuls emphasized self-reflection, silence and concentration. Architecture can provide small silent zones—like nooks, inner courtyards, or meditation alcoves—where children can pause, reflect, or calm their minds. This supports the psychological growth of students and aligns with NEP 2020's emphasis on emotional learning and well-being.

Fig. Self-assessment space.

Informal Learning Spaces –

Corridors, staircases, verandas and in-between spaces should not be wasted. Instead, these areas can become learning landscapes with low seating, blackboards on walls, reading corners, or areas for peer discussion. Such informal zones encourage spontaneous learning and the sense of community seen in Gurukuls, where students learned from each other as much as from the guru.

Fig. Informal learning space.

Spaces for Community Participation –

A major strength of Gurukul education was community involvement. Parents, local artists, farmers, craftsmen and elders all contributed to the students' growth. Schools designed today should have open workshops, amphitheatres, craft zones, or community kitchens where such people can participate. This also supports experiential and vocational education.

Fig. Interactive space.

Use of Local Materials and Techniques –

To make learning spaces rooted in place and tradition, the architecture should reflect local culture and climate. Using local materials (like mud, bamboo, stone, or terracotta), traditional building techniques and passive design strategies not only reduces cost and environmental impact but also creates a sense of identity and familiarity for the students. This promotes pride in regional heritage and supports sustainability.

Connection Between Indoor and Outdoor –

The line between indoor and outdoor should be blurred. Instead of completely sealed classrooms, there can be semi-open verandas, covered patios, shaded courtyards and learning terraces. This allows ventilation, daylight and a sense of openness that is mentally refreshing and more conducive to relaxed learning.

Performing Arts, Movement, and Play –

In Gurukuls, education was not just about reading and writing. It included music, dance, martial arts and physical training. Architecture should support these by including performance areas, music zones, dance studios and open fields.

Fig. Multifunctional space.

Scale and Informality –

Gurukul spaces were intimate and human-scaled, supporting informal interactions and unstructured learning moments. Unlike rigid classroom setups, these spaces allowed students to sit on the floor, lean against tree trunks, or move freely during discussions. Reintroducing informality—through flexible seating, open platforms, verandas and shared courtyard which can facilitate curiosity, peer learning with non-intimidating psychological safety.

Fig. Outdoor learning space.

Modularity and Growth –

NEP 2020 envisions learning that is lifelong and adaptable. Schools should not be fixed structures but allow for organic growth over time. A modular design approach can let schools expand, adapt, or reshape according to future needs. This supports long-term attachment and creates sense of community ownership generating a pride of belongingness.

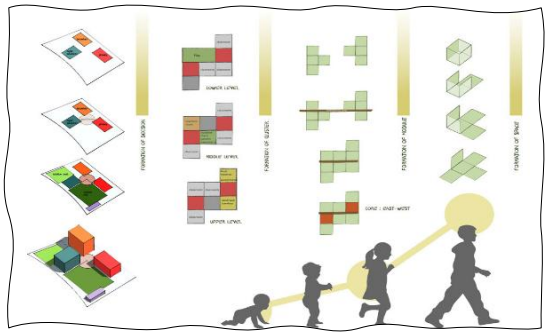

Fig. Flexible space.

Psychological and Emotional Comfort –

Every element of design—from the height of a window to the texture of a wall—affects how a child feels. The environment should feel warm, safe, and inviting. Rounded corners, soft materials, earthy tones, warm lighting, and personal spaces for each child (like a cubby or shelf) help create a sense of belonging and emotional security.

Fig. Self-realization space.

Sensory Design for Learning Environment –

Children don't just learn with their minds—they learn with their senses. The colours they see, the sounds they hear, the textures they touch, and the light or air around them all affect how they feel and focus. This is why sensory design is an important part of school architecture, especially in learning spaces that aim to be more balanced, holistic and in tune with modern and traditional education systems.

In Gurukul systems, the environment was sensory-rich. Students sat under trees, felt the breeze, touched the earth, heard chirping of birds and learned with their soul and mind together. Today, many modern classrooms are closed boxes with harsh lights, blank white walls, noise from fans or traffic, and little natural light or ventilation. Such spaces can feel dull, stressful, and even tiring especially for younger children.

Sensory-friendly design brings back this natural balance and helps create an environment where children feel calm, focused and happy.

Natural light not only saves energy but also keeps the ambience, natural, positive and reduces eye strain. Soft, warm colours on the wall such as earthy tones or pastels with influx of natural daylight or skylight create a peaceful and welcoming feeling. On the other hand, loud or overly bright colours can overstimulate or distract young minds.

Sound quality of a classroom also matters. Naturally coming sound can be a healing to the stressful education system that persists. In the modern set up, acoustic panels, soft flooring materials, or bamboo screens that absorb sound is possible. Quiet areas with soft cushions or mats give children space to rest, reflect, or calm down when needed.

The feel or textures play a role too. Touching materials like wood, clay, or fabric is more comforting than cold, smooth surfaces like plastic or metal. Using locally available, natural materials in mud walls, stone flooring and use of bamboo panels not only supports sustainability but also connects students to their culture and environment.

Aroma and air quality affects learning. Natural ventilation through openings, courtyards, or jallis (latticed screens) helps bring in fresh air in and reduces feelings of drowsiness or irritation caused by closed spaces. Adding small gardens, plants, or flowering trees near classrooms adds refreshing smells and helps students feel more connected to nature.

Fig. Universal designed space.

Incorporating sensory design supports emotional balance, focus, memory and comfort. It also helps students with different learning needs—including children who are more sensitive to noise or light. This aligns closely with both Gurukul values of peaceful learning and NEP 2020's focus on joyful, inclusive, and stress-free education.

Conclusion –

A man without an identity is just like a country without a history. Inheriting the different inheritable aspects of the rich legacy can only lay a profound roadmap to the contemporary education system This research explored how school design can support a balanced mix of traditional and modern education, inspired by the Gurukul system and the goals of NEP 2020. It found that while schools today may try to combine the two systems, the physical spaces often don't support this integration in meaningful and result oriented ways.

By studying both Gurukuls and present-day schools, the research showed that well-designed spaces like encouraging quiet thinking, closeness to nature, flexible learning practice and community involvement can lead to more complete learning experience. These elements are often missing in present day school designs. The study also emphasized that small architectural changes like using natural materials, designing spaces where students and teachers interact more informally can make a big difference. These design choices can support not just academics, but also emotional and social growth.

To conclude, if we want schools to be truly reflective of a holistic and rooted form of education, we must rethink how they are built and how the education process is executed. Architecture can become a bridge that connects the ancient values with contemporary needs and help create learning spaces that are thoughtful, inclusive, and future-ready.

References –

1. Ministry of Education, Government of India. (2020), "National Education Policy 2020", Government of India.
2. Pathak V. (2022),"Revival of Gurukul System: Integrating Ancient Education with Modern Curriculum", *International Journal of Research and Analytical Reviews*, Vol. 9, Issue 1.
3. Sharma R. and Rautela S. (2020), "Education in Ancient India: Learning from the Gurukul System", *Journal of Education and Practice*, Vol. 11, No. 8.
4. ADP Architecture. (n.d.). *Improving Children's Lives Through Design*.

Websites -

1. https://www.archdaily.com/
2. https://www.pinterest.com/
3. https://www.atelier-uelle.fr/
4. https://www.adp-architecture.com
5. www.timesnetwork.com
6. www.telegraphindia.com
7. https://www.oneyoungindia.com/
8. https://lesscar.ca/category/third-place/
9. https://contextbd.com/
10. https://www.tallboxdesign.com/
11. https://friendsofwillrogersgardens.org/
12. https://www.jagranjosh.com/

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