



D. W. Arthur Associates Architecture, Inc.

ENVIRONMENTS FOR CHILDHOOD
D. W. Arthur Associates Architecture

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ENVIRONMENTS FOR CHILDHOOD



Rendering of Charles Eisen's frontispiece for Laugier's *Essai sur l'architecture*, 2nd edition, 1775. Allegorical engraving of the Vitruvian primitive hut.

Dogan and Loretta Arthur

25 Years Of Designs For Early Education

Children in the Classroom

Daily, weekly and annual rhythms and rituals are reinforced in the familiar classroom setting. The classroom is the safe haven – the home base - for the varied activities as well as the routines of the school day. It is the start and return place for “field trips” of exploration and discovery.



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1. Williams College Children's Center, MA
2. Teton County Children's Learning Center, WY
3. University of Massachusetts Memorial Medical Center Child Care Center, MA
4. Beacon Hill Nursery School, MA
5. Harvard University Peabody Terrace Children's Center, MA

In Between Indoors and Outdoors

Much early learning is derived from the practice of making transitions from home to school, activity to activity, indoor play to outdoor play. Designs must intentionally address children's developmental needs to "inhabit" the transitional spaces they encounter throughout the day in both their physical and psychological - developmental realms.



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- 1. Corning Children's Center, NY
- 2. Beacon Hill Nursery School, MA
- 3, 5. Jacksonville Montessori School, NC
- 4. Lincoln Nursery School, MA
- 6. Williams College Children's Center, MA

The Structured Outdoors

Traditional playground design considers allocation of activity areas within a given confined space. This genre is familiar to all: swings, slides, climbing walls, steps, wheels, poles. These structures provide opportunities for children to let off steam, to learn how to follow rules, to learn about moving their bodies through space. Newer designs consider safety vs. challenge, providing opportunities for open-ended play vs. play with more predictable, prescribed outcomes.

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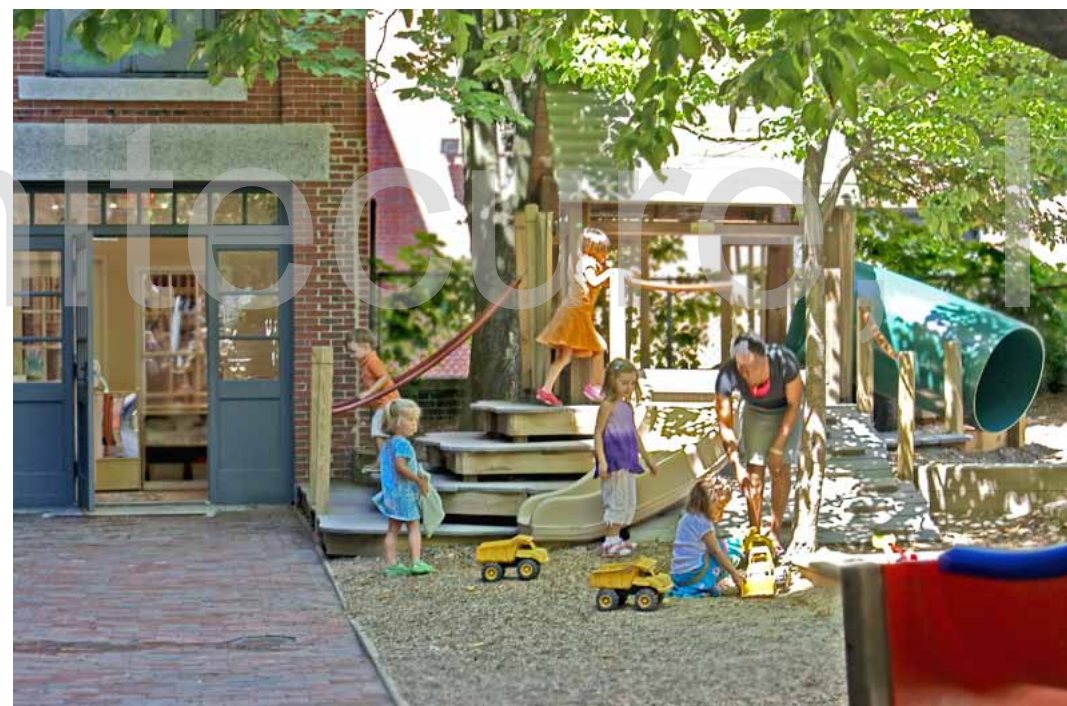
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1. Groton School Child Development Center, MA
2. Beacon Hill Nursery School, MA
3. Lincoln Nursery School, MA
4. Beacon Hill Nursery School, MA

Nature as Classroom

Lifelong learning of the infinite patterns and mysteries of the earth we inhabit is most intense during the impressionable early childhood years. We commence our journey through the process of learning as "blank slates," exploring infinite adaptations to find our place within physical as well as societal structures.



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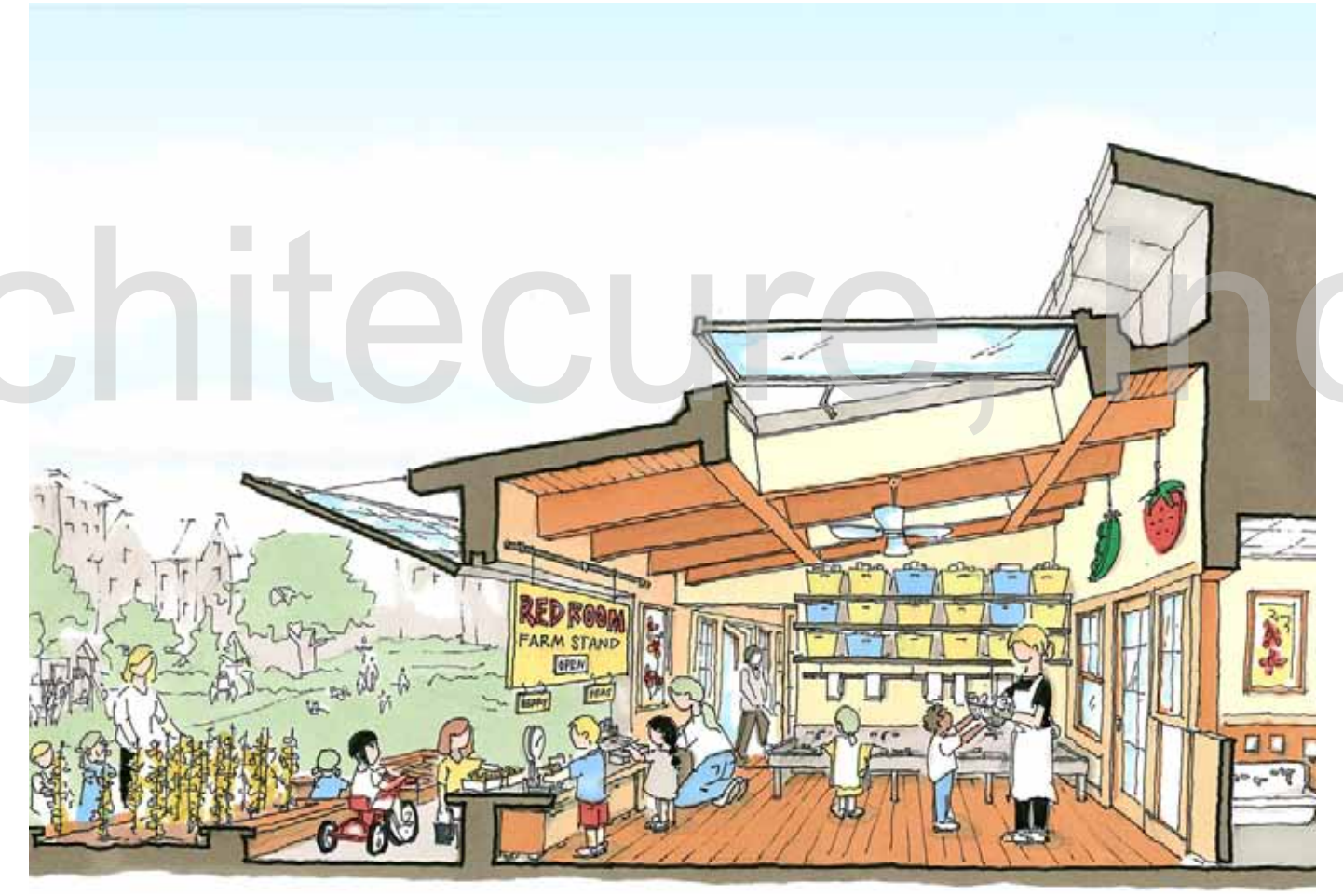
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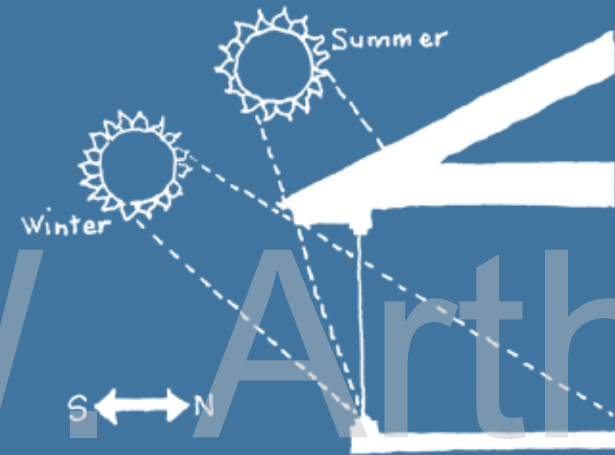


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- 1,2,5. Jacksonville Montessori School, NC
- 3. Lincoln Nursery School, MA
- 4. DuPont Child Care Center, DE

Sustainable Design

...should be an anachronistic term, as we are unable to afford anything but sustainable design. Sustainable building practices including principles of energy efficiency, resource sensitivity and incorporation of natural renewable materials, are ideas which align closely with early education programs.



Fluorescent lighting used throughout building to reduce energy cost.

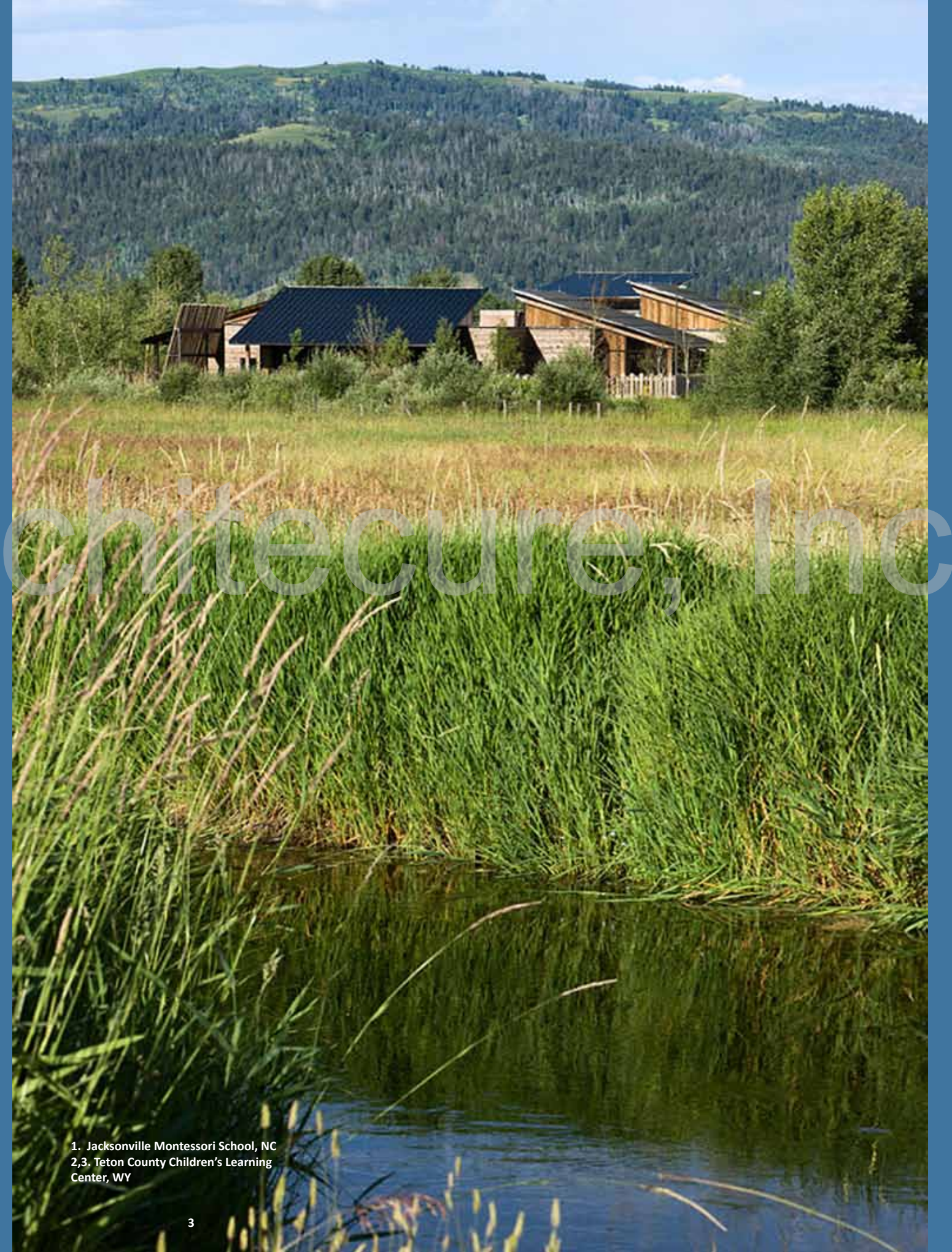
Natural daylight reduces the need for supplementary light and therefore reduces energy cost.

Occupancy sensors turn off lights when room is empty.

Daylight sensors dim lights when ample sunlight is available

Operable windows allow natural ventilation

Low flow and solar powered faucets



1. Jacksonville Montessori School, NC
2,3. Teton County Children's Learning Center, WY

Getting Dirty

What a blessing to be free of self-conscious, self-imposed limitations on creativity, to be naïve as to the success of the outcome, and to be able to dive into projects for the sheer pleasure of creation! In early childhood, there are no egoistic barriers limiting creative expression. An inspirational environment for teaching children considers spontaneous opportunities for play and creative expression both indoors and outdoors.



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1, 5. Jacksonville Montessori School, NC
2-4. Lincoln Nursery School, MA

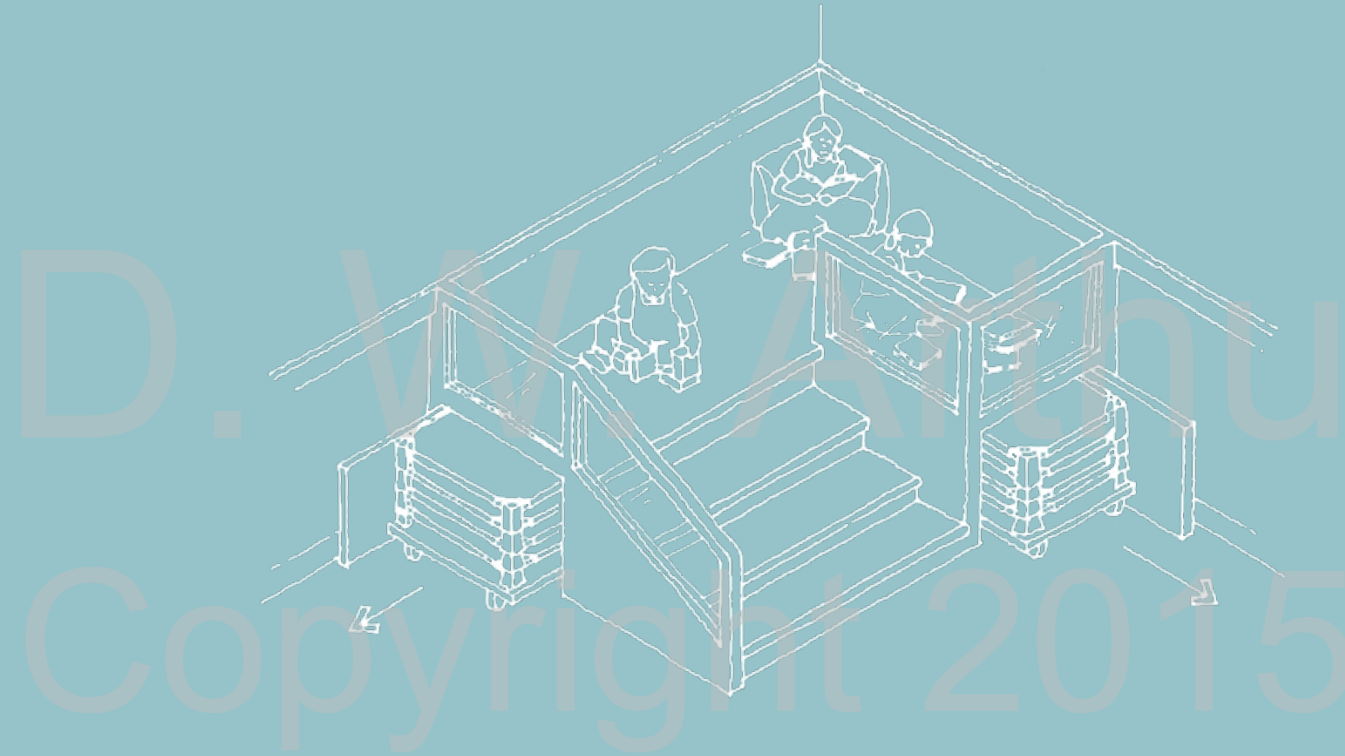


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GETTING DIRTY

Flexible Space

The built environment can inspire creative, spontaneous teaching through the design of static and dynamic components which have been built into the architecture.



2 Broad alcoves off corridors create habitable spaces



4a Murphy tables in open position create work surfaces



4b Murphy tables in closed position



3 Barn style doors and hardware utilized to close off or create large openings



5 Full height pivoting panels are used to open or close off space



6 Alcoves off hallways provide smaller scale spaces supporting more intimate groupings



1a Cot storage below play loft



1b Play loft transforms to stage for performances

- 1a-b. Corning Children's Center, NY
- 2. Teton County Children's Learning Center, WY
- 3. Corning Children's Center, NY
- 4a-b. Harvard Business School, MA
- 5. DuPont Child Care Center, DE
- 6. Williams College Children's Center, MA

Neighborhood and Context

Whether a building's setting is suburban, urban, institutional or corporate, design must be attentive to the culture, values and aspirations of its larger context – that of the community.



1. DuPont Child Care Center, DE
2. Groton School Child Development Center, MA
3. Beacon Hill Nursery School, MA
4. Teton County Children's Learning Center, WY

Children's Scale

Maintaining a child's-eye view of the world is a design parameter which is overlaid onto the adult's vantage point when creating places for teaching, care-giving, learning and play.



1. Abbott Laboratories Child Development Center, IL
2. Beacon Hill Nursery School, MA
3. DuPont Child Care Center, DE
4. Massachusetts General Hospital Back-Up Child Care Center, MA
5. Williams College Children's Center, MA

Imagination and Invention

As in the practice of architecture, learning in early childhood is interdisciplinary in its nature. Children's imaginative thinking includes analytical and creative components, just as inventive design solutions call for synergy between the right and left sides of the brain. The excitement of early childhood design comes from recognition of the reciprocal inspiration between childlike thinking and design invention.

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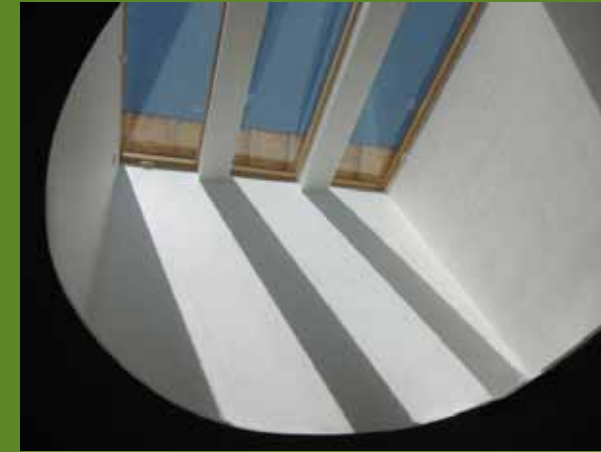


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- 1, 6. Lincoln Nursery School, MA
- 2, 3. Boston Children's Museum, MA
- 4. Beacon Hill Nursery School, MA
- 5. Massachusetts General Hospital Back-Up Child Care Center, MA
- 7. Harvard University Peabody Terrace Children's Center, MA

Light

"All material in nature - the mountains, the streams and the air and we are made of light which has been spent, and this crumpled mass called material casts a shadow, and the shadow belongs to light." - Louis Kahn



1, 3. Corning Children's Center, NY
2. Univ. of Massachusetts Memorial Medical Center, MA
4. Teton County Children's Center, WY
5, 6. Williams College Children's Center, MA

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LIGHT

Color

"The color of truth is gray." -Andre Gide

Colors should not overwhelm, but should augment those that make up the materials of day to day activities. Coats, boots, children's creations, and other elements fill the activity spaces, so highlighted colors in the architecture should be mindful of that "second skin".



1. Harvard Business School, Soldier's Field Park Children's Center, MA
2, 4 Harvard University Peabody Terrace Children's Center, MA
3, 5. Corning Children's Center, NY

Subverting Expectations

Do spaces for children require primary paint colors, bright, "fun" motifs, primary shapes, and references to cuteness? Should spaces for early childhood resemble homes? Schools? Amusement parks?

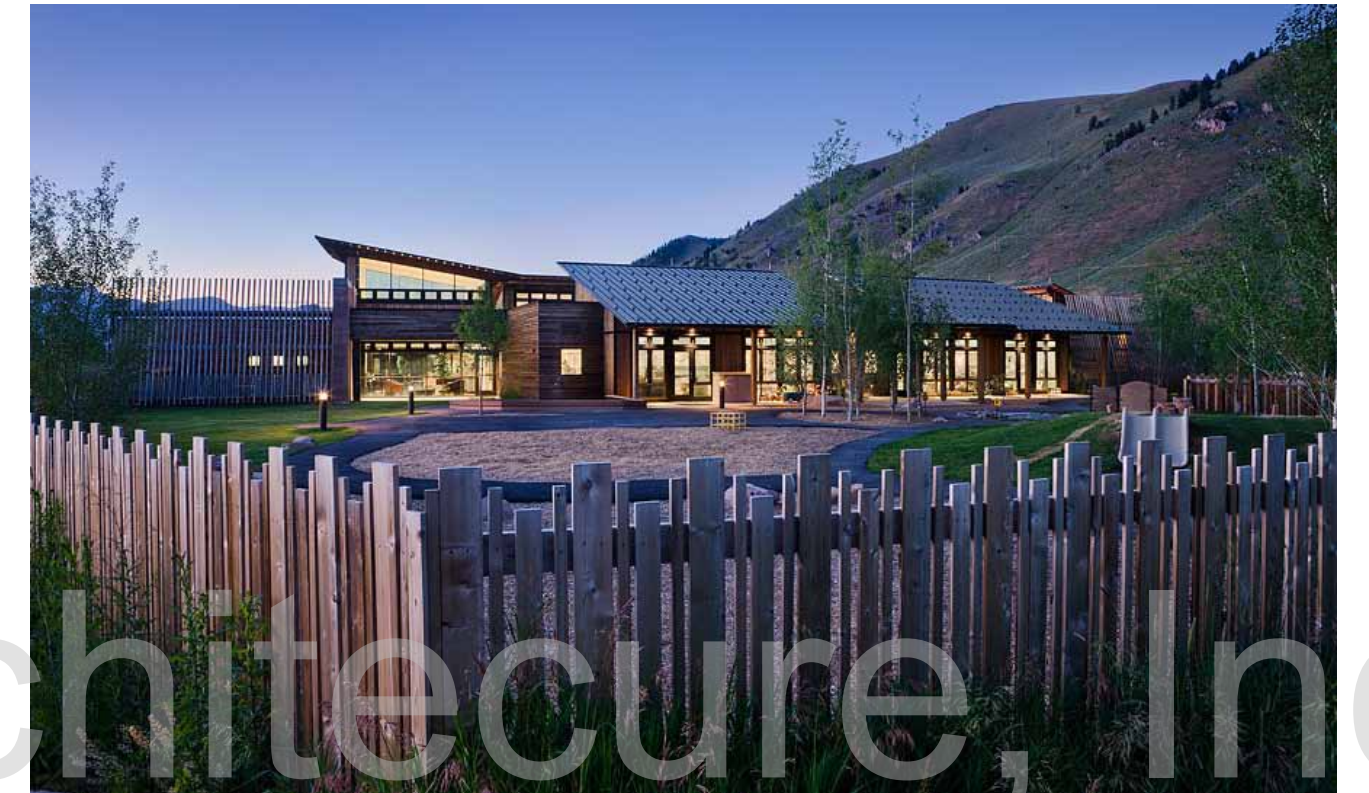
One aspires to design environments which achieve simplicity yet are not simplistic.



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- 1. Beacon Hill Nursery School, MA
- 2, 4. Corning Children's Center, NY
- 3. Teton County Children's Learning Center, WY

Materials

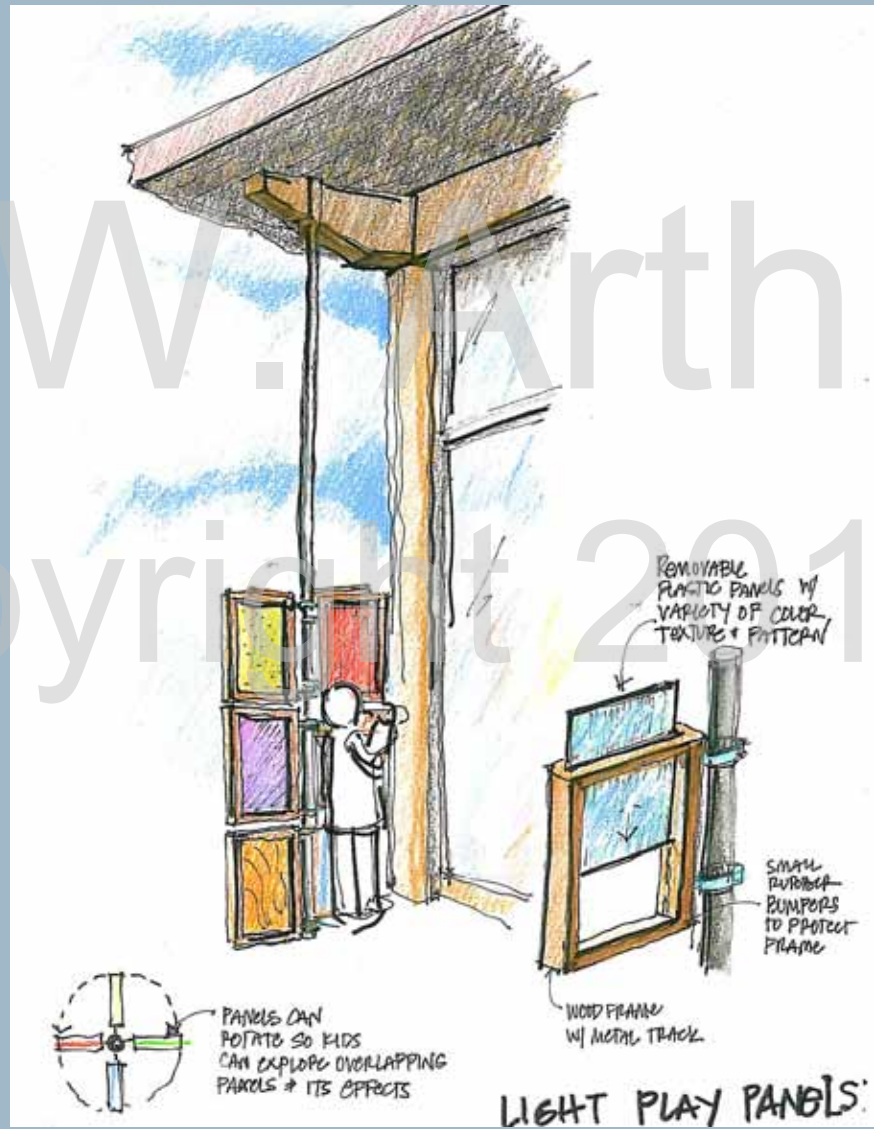
In selecting building materials, factors ranging from aesthetics to maintenance to safety are considered. In the context of the particular function of a space, the overall palette should assess how prominently the building materials call attention to themselves within the continuum of foreground to background.



1. Williams College Children's Center, MA
2. The Prudential Center Child Care Center, MA
3. Corning Children's Center, NY
4. Harvard University Peabody Terrace Children's Center, MA
5. International Trade Center Children's Center, NJ
6. Teton County Children's Learning Center, WY

The Senses and Exploration

The environment IS the curriculum for learning during early childhood. Piaget posits that at the earliest phase of life, learning is experiential, imitative and sensory-based in nature. The architectural response to the understanding of children's developmental needs is in the provision of a varied and spatially rich environment. This can be accomplished through studied orchestration of the repertoire of spatial sequences and hierarchies, textures of building materials, effects of forms, light, color, and scale.



1. Lincoln Nursery School, MA
2-4. Boston Children's Museum, MA
5. Abbott Laboratories Child Development Center, IL

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