Art as a Way of Learning®: Designing and Assessing Aesthetic Learning Environments
Table of Contents

Introduction

Aesthetic Environment: The third teacher

Aesthetic Operations: A common language

Teacher as Designer: Aesthetic Operations In Action
  Learning to See: Designing Eyes
  Creating a Sense of Place
    Repetition
    Formalization
    Dynamic Variation
    Exaggeration
    Surprise!

Impact of Aesthetic Decisions

Design Challenge

How to Use This Tool
  Step 1. Choose a space to assess
  Step 2. Analyze the space for its aesthetic impact
  Step 3. Identify changes to enhances inquiry and aesthetic decision making

Aesthetic Environment Glossary

Bibliography
INTRODUCTION

Art as a Way of Learning® (2001) is a professional development framework for integrating the arts into the daily lives of children. From its inception, the aesthetic learning environment was an essential component and an integral to designing a place where curiosity, exploring, investigating, creating, and meaning were inspired and supported. This exciting tool extends and reinforces the AWL® belief that the arts as a language, empowers children to construct, communicate, and express understanding and meaning (p.9). The learning environment can act as a third teacher affording opportunities for children to construct who they are with others and uncovering and what they know and can do.

Your teaching may already be inspired by an emergent, early childhood approach such as Reggio Emilia, the Project Approach, Art as a Way of Learning® (AWL) or another arts integrated model that is intentional, constructive, and developmentally appropriate. This AWL® aesthetic assessment tool is intended to supplement classroom inventories that look at the quality of the curriculum, safety, children's development levels, and other key aspects of high-quality, universally designed early childhood programs. This unique tool examines the sometimes more elusive or subtle aspects of the classroom that may seem hard to define or explain - the aesthetics aspects of the learning environment.

Your classrooms, greeting areas, and outdoor playspaces communicate ideas, and feelings to both young learners and adults. This AWL® assessment tool provides a pathway for understanding the elements of an aesthetic environment and how to recognize, assess and create places that promote a sense of well-being, competence, and community. An environment that attends to the aesthetic elements awakens a "feeling" of belonging and identity. Creativity, and meaning are promoted and constructed in these exciting spaces.

This AWL® tool will advance your understanding of how decisions related to the aesthetic aspects of the environment will create more intentional, inspiring space for teaching and learning. Using the aesthetic elements we can assess and design places, shared living and learning spaces, classrooms, centers, and outdoor playspaces to support engaging learning, intentional teaching, and Art As a Way of Learning®.
Aesthetic Environment: The third teacher

How many years have you spent in classrooms? What do you think of when you recall your first learning spaces? Do you see white boards, green chalkboards or black chalkboards? Do you smell markers or feel chalk, the hardness of chairs, the color light in the room? Or do you see jungle gyms, trees and dirt? Your experiences in learning spaces build your image and feeling of what a learning place can be.

You learn everything through your body and your senses are the portals to this learning. Your body and brain is literally built to make sense of everything you encounter in the world. You continuously make connections as you seek out familiar patterns or uncover what is new or novel around you. You have an inborn aesthetic capacity that is hardwired into your brain/body system. You are aware of a “felt sense” in an environment and you comment. “That classroom felt so welcoming or children must feel so inspired in that place. I had a sense this was a good place for children to learn.” You sense the place with your whole being. Everyday you “set the stage” for children’s learning, whether you are aware of this or not.

The question then is HOW can I capitalize on what my body and brain knows naturally? What am I aware of in my surrounding? How can I use this in my living-learning space?

As a teacher you can intentionally prepare an accessible, culturally rich, aesthetic learning environment that reflects understanding of how individual children grow and learn in your particular community. You can consciously create overlapping “learning zones” that promote child-adult collaborations and advance learning and development on multiple levels. You can create your “Sense of Place”.

The early childhood environment, including your classroom and outdoor playspace, communicates a great deal of information, inspiration, and expectations to children and adults. The physical environment including the organization, accessibility, and aesthetics, impact those who move, play, interact, and work in the space in very significant ways. Your aesthetic decisions influence children’s interactions, play, daily routines, investigations, and skill development as well as directly impacts curriculum and programs. Learning how to create spaces that sustain attention, generate feelings, and provide opportunities for investigation, collaboration, and learning is a critical aspect of a teacher’s role - Teacher as Designer.

The aesthetic elements we must consider are:

1) Aesthetic Operations, repetition, dynamic variation, formalization, exaggeration and surprise
2) Design aspects of the environment including lines/pathways, color/light, shapes/objects, smell/taste, texture/temperature and sound/dialogue.
Aesthetic Operations: A common language

The etymology or root of the word aesthetic means to awaken. This tool shifts the meaning of the word aesthetics from beauty to awaken building a common language to look at spaces. Therefore, an aesthetic environment:

- awakens the senses, focuses attention, and engages each learner in a perceptually rich and visually cohesive learning space
- awakens each child and adult to the patterns and uniqueness of each other and the world around them
- awakens a sense of belonging, mutuality, meaning, competence, and a caring about important things by those who play and work in the space;
- awakens how aspects of design can communicate, guide actions, and inspire curiosity, imagination, and feelings about a place;
- awakens and reinforces the unique role the arts play in development, learning, and sense of well being.

The five Aesthetic Operations, repetition, formalization, dynamic variation, exaggeration, and surprise are evident in our natural world and are an essential inborn aspect of who we are as humans (Dissanayake, 2007). Picture a place you enjoy, your backyard, a view of the city, forest, ocean, or countryside. Zoom in on parts of the imagined scene. What is repeated...the shapes of the leave, the overlapping waves? Is there a balance of textures, shapes and colors? What varies in your scene keeping you interested? How would you describe the essence of this place? What stands out or surprises you?

These same operations can be vividly seen in the interactions between infants and mothers as they engage in the physical, visual, and verbal exchange of looks, touch, gestures, and words. Imagine playing peek-a-boo with a toddler. Through this intimate, playful exchange a toddler sense of self and mutuality is being developed. Interactions in your social and natural world give you a sense of purpose, belonging, and competence. Engagement in your world with others gives it meaning and help you make what may be invisible, your thoughts and feelings, visible to others.

The Aesthetic Operations, occurring naturally in our physical and social world are also evident in each art form. The art of dance, music, drama and the visual arts evolved from the rituals and interactions of daily life. These are found in musical arrangements, dances, compositions of paintings, collages, or sculptures and in dramatic stories.

Research on the brain explains how aesthetic operations occur in your body and mind and how these inborn operations help you know everything. Neuroscientists clarify how these aesthetic operations also serve you in important ways to make sense of yourselves and create meaning in your life (Rachmanadan, 2011; Damasio, 2010). These five operations – repetition, formalization, dynamic variation, exaggeration, and surprise – are an intrinsic and natural part of who we are and who you become as a human being.
Designers, architects, sculptors, choreographers, set designers, musicians and artists intuitively and intentionally consider the five aesthetic operations in their work. They deliberately arrange aspects of their medium to create something that awakens something in another. Teachers who think like designers and artists can intentionally use the five operations to transform daily teaching and learning, making every day a work of art. (see Table 1).

Table 1. Basic Aesthetic Elements
This chart shows the dynamic relationship between the five Aesthetic Operations and the design aspects of environment

<table>
<thead>
<tr>
<th>Aesthetic Operations</th>
<th>Design Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line/Pathways</td>
<td>Shape/Objects</td>
</tr>
<tr>
<td>Color/Light</td>
<td>Smell/Taste</td>
</tr>
<tr>
<td>Texture/Temp</td>
<td>Sound/Dialogue</td>
</tr>
</tbody>
</table>

Repetition
Pattern, Rhythm
Expectation

Formalization
Space, Balance, Unity

Dynamic Variation
Movement, Variety, Contrast

Exaggeration
Emphasis, Scale, Proportion

Surprise
Manipulate expectations, Novelty

Teacher as Designer
Early childhood programs are situated in a center that should reflect natural, physical, social, and cultural characteristics, as well as the diversity of your community. The design aspects and Aesthetic Operations work together in a consistent way, but yield different results based on how the above “situated” factors are realized in your space. To begin this process you must learn to see and develop your ability to think and work as a Designer.

Learning to See: Designing Eyes ~ The field of design has a significant impact on our daily lives in every way from what we wear, how we live, travel, what we see and hear. The products they create are thought of as a “second skin” - your shoes, coat, house, or car. All designers make decision based on similar aesthetic elements. As teachers we can use these same elements to create engaging, inclusive, environments that surround us and create a sense of place.

Creating a Sense of Place ~ Recall a favorite place from childhood, a recent vacation, movie or a book you have read. Close your eyes and visualize the place or setting. Examine the details in your mind’s eye - colors, time of day, lighting, season, temperature, sounds, and the objects you can see or feel. All of these design aspects create a sense of place and time, a feeling and memory of your experience. Your senses were awakened to color, light, sounds, textures, temperature, smells, objects, and movements. These design aspects of a place are taken into consideration as you analyze and interpret each Aesthetic Operation and their power to transform your learning spaces.
Color and Light has a significant impact on how you feel in a place. Color and light create a mood making a place seem cold or friendly, quirky, peaceful or boring. Using the five Aesthetic Operations can help you be consistent and mindful of how to use color and light.

Texture and Temperature is the most tactile of design aspects. They relate to the tactile and visual sensation. You make very quick decisions about a place based on how it feels to the skin and the eye.

Line and Pathways create edges and a sense of movement, often providing direction for our looking and actions. These are essential design aspects that can make a space chaotic or calm. Aesthetic Operations provide a way to range of ways to vary lines and pathways that communicate how to move and what to do here.

Shape and Objects take into account the overall structure, furnishings, materials as well as the details. Aesthetic Operations help you zoom out and zoom in to fine tune spaces and create a sense of overall unity.

Smell and Taste is probably the most primitive of the design aspects since they impact you upon entrance to any new place. Subtle, not always obvious, but critical in providing a welcoming and inspiring environment.

Sound and Dialogue requires your attention and is essential for conversations, and building relationships. The relationship may be with another or with yourself in nature but both involve and exchange of listening carefully, responding, and communicating.

REPEITION ~ When you enter a space your eyes travels from one part to another, searching for similarities, cautious of differences. Your brain is always working to find patterns to help make sense of where you are and what you are to do in this space. You literally “read” the environment, for clues. Repetition creates an overall pattern, grouping your perceptions together. Recognition of these patterns makes you feel like you belong and your surroundings make sense. You know where you are.

Repetition of color, shapes, sounds, movements, lines, and texture creates the rhythms and patterns found in nature, daily life, artworks, and your community. Repetition helps you and children identify relationships and recognize routines and expectations. Repetition creates an overall rhythm or feeling in your classroom or playspace promoting this a sense of mutuality, identity, and competency.

Examine the repeated lines, colors, shapes, textures found each picture.
FORMALIZATION ~ Formalization mirrors the unity or overall structure and intention of the environment. Formalization creates a visual harmony among the various classroom elements, promoting a sense of completeness and purpose in the learning environment. Viewers’ eyes are naturally led from one area of the classroom to another, linking them into a cohesive whole. Just as an integrated curriculum includes a balance of content and learning experiences, an aesthetic environment conveys a balanced effect on our sense of well being. Attention to formalization relates important messages about “what happens here” – the meaning of this space. Balance among the design aspects (color, pathways, light, sound, textures, scents) and the physical weight and size of objects and furnishings distributed within the environment produces a formal balance in the space. Children and adults feel the completeness, meaning, and sense of mutuality in the space when formalization is considered.

The formal structure of trees lining each side leads us down before we even take the first step. Imagine what lies beyond the bend as you walk along the path.

DYNAMIC VARIATION ~ Dynamic Variation is one of the ways to sustain your attention over time. Attention is the first step in the learning process. Varying the sensory aspects of the classroom creates interest and keeps you engaged over longer periods of time. Variations emphasize contrast in size and scale (big/little), light (bright/soft), sound (loud/soft), movement (fast/slow), color (dark/light), texture (soft/hard) and levels (high/low). Changes can be a change in the repetition, a gradual sequence, or provide a stark contrast. Dynamic variation evokes movement and curiosity, denotes a change, or distinction, which makes you think and wonder what comes next? Contrast invites comparisons between similar or diverse objects, elements, levels, or ideas. Movement is another way to produce variety in the classroom. This includes simulated movement as in the swirls on a pillow or actual movement as in a mobile or the blowing of sheer curtains. Children and adults feel energized and competent in the presence of dynamic variations and can sustain engagement longer.

Look closely at the Peacock’s beautiful dynamic variation. What a feather show!
**EXAGGERATION** ~ Exaggeration requires you to focus on the essence of an object or space. This is a more pronounced distinction than found in dynamic variation. You tune into differences, but this difference makes us stop, look again, re-engage and see more clearly. Proportion emphasizes the relationship of one part to the whole or another part. The size, scale or amount of color, texture, lighting or smell can be exaggerated or limited. Imagine an all white room with a vase of red tulips. An object is seen more clearly in relation to its surroundings if it is exaggerated. Emphasis on one aspect to the exclusion of another creates a point of focus in a learning area. Some ways to exaggerate an object or space is to isolate it, change the scale, distort an aspect or pare it down. Simplifying, editing, or taking away extraneous items is another way to exaggerate, presenting an essential idea in a zen-like fashion. Less IS more! Consider carefully how to present complex ideas or activities by exaggerating a specific aspect, limiting design aspects, or changing the scale or proportions of objects in the space to call attention to it. The selective use of Exaggeration can effectively highlight meaning and purpose in a classroom and encourage creative and critical thinking.

**SURPRISE** ~ Surprise catches you unaware. A surprise can astonish, amaze, annoy or even startle us into paying attention. Surprise brings emotion to the surface of our experience - joy, fear, wonder, laughter and even tears. Surprise changes or manipulates our expectation and puts us on high alert. The surprise found in a unified space creates opportunities to uncover new ways of seeing and feeling while offering new ideas to investigate. “How did that happen?” Surprise can also make the invisible visible or the ordinary special. Ellen Dissanayake calls this artifying which gives something you see everyday new meaning. Surprise often helps you to see what is important again, bringing pleasure and a range of positive interactions among individuals - “You made my day!” Children delight in the intermittent surprises they find in nature or within their classroom. Surprises help you care about what is important again. These surprising discoveries are highly motivating, generate energy and mutuality, and provide a sense of wonder in our everyday.
Impact of Aesthetic Decisions

Much like a like a great meal, the “experience” is more than just the food we eat. The experience is greater than the sum of the parts, since it involves the people, conversation, setting, presentation, and of course the food. In the chef’s recipe, the design aspects serve as the cooking ingredients, while the Aesthetic Operations are used to determine how much of each design aspect and the ways to combine them. If all elements are considered and connect for an overall experience then the result, whether a memorable meal, or an engaging classroom, is inviting and pleasing to all of the senses and for all involved. You feel satisfied and happy.

This is true for our early childhood programs as well. The overall “experience” of interacting in this environment is “felt” by adults and children alike. Encounters within an organized, accessible, aesthetic environment is greater that the sum of each of the parts. This tool will allow you to examine both the individual spaces in your center or classroom as well as the overall “composition” created by those parts. Thoughtful consideration of the Aesthetic Operations and design aspects has a powerful influence on how everyone interacts and feels in this space.

The impact of intentionally considering the aesthetic elements has far-reaching benefits for all who work, imagine, play, and learn in any environment. Across all cultures and through time, the mindful, routine use of the five Aesthetic Operations within a culture or environment creates:

- **A sense of Mutuality** - a feeling of closeness and intimacy with one another,
- **A sense of Belonging** - an identity as a member of a group,
- **A sense of Competence** - a feeling that there is something important to do and learn here, socially, physically, and cognitively,
- **A sense of Meaning** - gives value and purpose to what has been done in the past, what is happening now, and what could happen in the future,
- **A sense of Artifying** - demonstrates a regard for life and the caring about important things by making the ordinary special and the invisible visible. (Dissanayake, 2007, p. 794).

Intentionality about the aesthetics aspects of a place or environment can become an exciting catalyst for change. Mindful choices based on Aesthetic Operations help focus each child’s attention, attune us to important aspects of an experience, activate curiosity and imagination and provide opportunities for inquiry, intentional learning and creative engagement. The interaction among each child, the caring adult, and the aesthetic environment creates what is often called a “third space”. This dynamic, in-between space is where learning and meaning making are negotiated and constructed within and through multiple learning experiences.
Design Challenge

When you link your teaching with a thoughtfully planned aesthetic environment, you purposefully extend opportunities for children's learning and engagement. As we set up our classrooms and outdoor playspaces we wonder:

- How can the design, and arrangement of space, light, furnishings/equipment, tools/materials, and storage area work together to create an inclusive, inviting, engaging learning spaces for each child and family?
- What types of settings, materials and resources promote each child's sustained learning, imagination and meaning making through the visual arts, math, music, dance, literacy, and other languages?
- How can aesthetically pleasing, culturally diverse, environmentally friendly, natural materials support each child's inquiry, sense of well-being and competence within his or her surroundings?
- What types of implicit and explicit messages and documentation assure that each child's learning is visible to families, colleagues, early childhood education students, and community members?

You might also be wondering “how can I capture the aesthetic quality of a classroom or a playspace”? Isn’t beauty in the eye of the beholder? Agreeing on a common set of aesthetic elements facilitates an ongoing dialogue about learning, design, environments, and teaching. Belief in your capacity to uncover the Aesthetic Operations in any setting is important as well.

To develop your “Teacher as Designer” skills we suggest getting a spiral bound, unlined artist journal to keep your inspirations and assessments of spaces in your environment. To awaken your discriminating eye before you start looking at your own spaces, find a picture of a room created by a designer. You can pick any room, a kitchen, bedroom, living room, or print one from the House Beautiful website http://www.housebeautiful.com/website. Paste it in on the left side of your journal. Begin to look for and label the Aesthetic Operations you see at work in the room. Can you identify all five Aesthetic Operations? Are the design aspects evident? Where? Do this activity with your teaching partner and share your thoughts.

Another way to awaken your “Designing Eyes” is to partake in any of the activities listed below. Do you see repetition, formalization, dynamic variation, exaggeration, and surprise in the world around you? Practice refines your sensibilities.

- Take a walk outside in nature or go to a park
- Find a painting by a favorite artist
- Go to a flower shop and look at how they combine plants in an arrangement
- Go on line or visit a museum to view artist’s work
- Look through design magazines, comparing the same room (e.g. living room) by different designers
- Look at rooms in your own home to see if the five operations are present.

NOW you are “tuned in” to the five Aesthetic Operations and design aspects - Ready to assess your learning spaces?
How to Use This Tool
Imagine you are a child, entering your classroom or outdoor playspace for the first time. Or picture yourself as an architect, curious to see how design affects learning. How fascinating it will be to look at, analyze, and design your learning environments from this new perspective!

With this Art As a Way of Learning® Designing and Assessing Aesthetic Learning Environments tool, you will
- See your teaching space more objectively, through the eyes of a designer who also understands each child and family;
- Discover how your decisions about design aspects such as light, color, pathways, textures, and shapes, influence each family and child’s sense of wonder, investigations, and interactions with one another;
- Uncover creative, original ways to furnish, arrange, and prepare your space every day to invite curious, active children that are engaged in learning.

FIRST, zoom in by choosing a learning space – a specific area of your classroom or school - to examine closely. Once you become familiar with the tool and thinking like a designer, select additional areas of your environment to assess and rethink.

NOW you will use a practical tool—called a rubric—to assess each area’s aesthetic elements and potential. As you analyze the space, you will become more familiar with the design aspects and how you can use the Aesthetic Operations to transform learning in your environment.

FINALLY, you will identify ways to more intentionally awaken ALL who enter your classroom to a fuller, richer learning experience. Each time you select another area of your space for analysis, you open another door to assure that each child and adult are learning by design.

As an Aesthetic Learning Environment Designer, you will apply the Aesthetic Operations and design aspects to communicate:
- Your unique approach to encourage each child’s safe and independent inquiry and engagement;
- A spirit of an inclusive place that welcomes diversity and values each child and their family;
- Beliefs about the universality and uniqueness of each child as capable and curious who can represent their learning in a variety of languages including the visual and performing arts, words, and numbers;
- Your support for the idea that learning is multi-sensory and interactive, including the use of assistive technology;
- A “third space” in which each child constructs knowledge about the world through explorations co-constructed with intentional, creative adults.

For additional information about preparing an aesthetic, universally designed learning environment see Art as a Way of Learning: Explorations in Teaching (Pinciotti, 2001) and Building Inclusive Child Care (Cunconan-Lahr & Stifel, 2007).
Step 1 – ZOOM IN... Choose an area to assess

Decide which space in your school, classroom, center, or outdoor playspace merits a closer look by focusing on the aesthetic aspects of the learning environment. You may want to choose an area that

- everyone uses or moves through,
- you think is important but is seldom used by children,
- contains a learning experience that you want to change, or
- looks or feels chaotic, overused, tired, or stale.

Sketch or take a photograph of the space. Then briefly answer these questions about its function and form.

<table>
<thead>
<tr>
<th>Sketch or photo input below</th>
<th>What are the expectations for this space?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What is the purpose for this space? What message(s) do you want it to convey?</td>
</tr>
<tr>
<td></td>
<td>Who typically uses the area? How do they use it? How long are they in this space?</td>
</tr>
<tr>
<td></td>
<td>Does each child and/or adult have access to materials, tools, and furniture? Are there any visible barriers?</td>
</tr>
<tr>
<td></td>
<td>How does each child and/or adult move throughout the space?</td>
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<tr>
<td></td>
<td>What does the area say about children as capable, independent learners?</td>
</tr>
<tr>
<td></td>
<td>What does the area say about your school, center, families, or community?</td>
</tr>
<tr>
<td></td>
<td>How does the area make learning visible to each child, their family, and visitors?</td>
</tr>
<tr>
<td></td>
<td>How does this space make you feel? In what ways does it inspire your teaching?</td>
</tr>
</tbody>
</table>
Step 2. Analyze the space for its aesthetic impact
Read through the explanation of each Aesthetic Operation. Place a check (✔) in the description in each section that best reflects the current space you are studying. Visit the glossary at the end if you need clarification on a new word.

Consider each environmental design aspect as you assess the space: Color/Light, Texture/Temperature, Line/Pathways, Shape/Objects, Smell/Taste, and Sound/Dialogue. To tally the score, add the number next to the check (✔) in 1, 2, or 3 for each section. Add the separate totals for each of the five Aesthetic Operation -- Repetition, Formalization, Dynamic Variation, Exaggeration, and Surprise -- in the Tally Chart at the end. The total will give you an Overall Aesthetic Score for the space you are assessing.

Here is how to begin viewing your space as a Designer!

An array of block accessories is neatly stored on open shelves in containers. But the plastic sides prevent children from seeing what is contained within, making it more challenging for them to select the materials they need to extend their collaborative constructions that involve physics, math, architectural, and fine motor skills.

These clear containers contain an easily accessible, inviting selection of collage materials with a variety of colors and textures. They inspire children's creativity, ideas, and curious interaction.
**REPETITION** groups our perceptual experiences and helps us make sense of where we are and what we are to do in this space. Repetition helps children and adults identify relationships and recognize expectations. Design aspects may include repeated lines, shapes, colors, smells, textures, or sounds that can serve as cues about how to think, feel and act. Using repetition of various design aspects in your classroom helps to organize and link ideas, materials, and feelings by creating an overall pattern. The result of repetition is a sense of belonging and the development of an identity.

Arranging materials, objects, and furniture to highlight a repeated pattern requires you to consider the relationship among the various design aspects of each space in the classroom, center or school. For example, choosing one color, blue and variations of blue can define an area and create a monochromatic visual border for the space. Repeated soft textures can communicate a relaxing, quiet place, while the consistent shape and color of baskets can visually define a busy area. You can also highlight the design aspects and sensory qualities of objects and materials.

Repeating a design aspect (line, objects, colors, smell, textures, sounds) creates an overall rhythm or mood in a space. Visualize children’s shoes lined up outside the classroom. This repeated rhythm reinforces expected interactions and makes positive behaviors more automatic. This is what happens here!

Varying the repetition of design aspects from one space to another in your environment helps children think and work differently in the various spaces. However, repetition is not an excuse to keep something the same in your space for months or years, especially if adults or children seem bored or misbehave in the area again and again. Time to look at the space using repetition.

This large classroom sink uses repetition to convey the expected hand washing behavior at the sink. The intentional arrangement above the sink creates visual interest. How does this design keep the children on task?

Traditional Turkish clothing is intentionally grouped to attract children’s interests through the color and fabric textures. The items are labeled to assure that adults understand their significance and can discuss their uses with curious children.
In my space, specific design aspects are intentionally repeated to clearly communicate expectations, purpose and sense of place.

3 - Consistent

In my space, design aspects are generally present with limited repetition to communicate expectations, purpose and sense of place.

2 - Partial

In my space, design aspects are present but are either isolated or overloaded making communication, expectations, purpose and sense of place unclear or confusing.

1 - Minimal

In my space, materials are deliberately selected, edited, and displayed to highlight similar sensory aspects that are repeated to regularly advancing interest and inquiry.

3 - Consistent

In my space, materials are selected and displayed to highlight sensory aspects often advancing curiosity, and inquiry.

2 - Partial

In my space, the selection and display of materials to highlight sensory aspects appears random or jumbled limiting curiosity, and inquiry.

1 - Minimal

In my space, repetition of design aspects is thoughtfully used to organize spaces and materials promoting positive interactions, self-regulation, and competence.

3 - Consistent

In my space, repetition of design aspects is used to organize spaces and materials sometimes promoting positive interactions, self-regulation, and competence.

2 - Partial

In my space, repetition of design aspects is occasionally considered as a way to organize spaces and materials limiting positive interactions, self-regulation, and competence.

1 - Minimal

In my space, information and displays, including documentation of children’s learning, use repetition of design aspects to effectively communicate a clear visual message.

3 - Consistent

In my space, information and displays, including documentation of children’s learning, use repetition of design aspects to generally communicate a visual message.

2 - Partial

In my space, information and displays, including documentation of children’s learning, use repetition of design aspects to somewhat communicate a visual message.

1 - Minimal

In my space, the natural and cultural aspects of the community and each child’s family are thoughtfully and effectively repeated in the materials and artifacts, nurturing a sense of belonging and identity.

3 - Consistent

In my space, the natural and cultural aspects of the community and each child’s family are sometimes repeated in the materials and artifacts, usually nurturing a sense of belonging and identity.

2 - Partial

In my space, the natural and cultural aspects of the community and each child’s family are inaccurate or rarely evident, limiting a sense of belonging and identity.

1 - Minimal
Formalization is the Aesthetic Operation that reflects unity, simplification, or overall structure of the environment or space. Formalization takes into account balance, scale and proportion to create harmony in a space. Throughout the entire space and among the individual areas there should exist a cohesive relationship between and among all the materials, furnishings, and displays. Formalization is what pulls the design aspects of the learning environment together and ensures purposeful and efficient movement between areas.

Balance encompasses varying dimension or scale of the design aspects that are distributed within the space. Just as an integrated curriculum includes a balance of content and learning experiences, an aesthetic environment conveys a balanced effect between and among the various design aspects. Which spaces need quiet? Are there transitional spaces between this quiet area and a noisier area of the environment? How does varying the height and type of furniture suggest the level of sound?

Children and adults feel competent and can make meaningful choices in such a harmonious environment. When Harmony is achieved among classroom design aspects, then adults and children experience a “completeness” in the environment, sensing a balance among movement and activities. Formalization can incorporate patterns to create various types of balance to unify or group objects, such as the use of symmetrical, asymmetrical, repeated, and radial patterns.

In a space where you thoughtfully consider Formalization, your eyes are naturally led from one area to another, connecting various areas of inquiry and learning into a “formal cohesive whole”. Each early childhood center or school is situated in a community and the space should reflect the surrounding geographic and natural characteristics, as well as the diversity of that community. Consistent use of specific design aspects produces this powerful affect.

Thoughtful use of formalization creates a sense of balance and purpose in this space. This writing area features a relationship between the Picasso poster and the writing surface of the desk. The three shelves create a transition space for materials with just enough empty space to invite children to write and illustrate their ideas. The asymmetrical arrangement of new plants in cups to the taller plants leads our eye right out the window to the larger tree.
<table>
<thead>
<tr>
<th><strong>FORMALIZATION</strong></th>
<th><strong>Evidence</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>In my space, furniture and objects are intentionally chosen and arranged to create an overall sense of balance and harmony using <em>design aspects</em>.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, furniture and objects are usually chosen and arranged to create a sense of balance and harmony using <em>design aspects</em>.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, <em>design aspects</em> rarely influence my choice or arrangement of furniture or objects and my space feels unbalanced, overcrowded, or confusing.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, objects, artifacts and materials are deliberately grouped to showcase <em>design aspects</em>, content connections, or creative relationships using symmetrical, asymmetrical, repeated, or radial patterns.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, objects, artifacts and materials are often grouped to showcase <em>design aspects</em>, content connections, or a relationship using symmetrical, asymmetrical, repeated, or radial patterns.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, objects, artifacts and materials are grouped, but the use of <em>design aspects</em>, content connections, or relationships to create a pattern are limited.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, the effective use of scale and proportion generates an overall balance and feeling of completeness, and unity.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, a generally effective use of scale and proportion generate some balance and feeling of completeness and unity.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, a somewhat effective use of scale and proportion generate limited sense of balance and feeling of completeness and unity.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>Pathways in, out, and through my space clearly link this area to other spaces and promote each child’s competence by effectively facilitating different kinds of movement and accessibility.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>Pathways in, out, and through, my space usually link this area to other spaces and promote each child’s competence by facilitating movement and accessibility.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>Pathways in, out, and through my space poorly link this area to other spaces creating barriers to competence, accessibility, or ease of movement.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, the overall geographic, natural, and cultural characteristics of my community are thoughtfully incorporated advancing identity and meaning in the children and adults.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, some of the geographic, natural, and cultural characteristics of my community are incorporated suggesting identity and meaning in the children and adults.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, the overall geographic, natural, and cultural characteristics of my community are not considered or incorporated limiting identity and meaning in the children and adults.</td>
<td>1 - Minimal</td>
</tr>
</tbody>
</table>

**FORMALIZATION TOTAL SCORE**
**Dynamic variation** involves selecting a *design aspect* (color/light, line/pathways, shape/form, texture/temperature, smell/taste, sound/exchange) to differ from another. This discrepancy creates interest, particularly if it is in contrast to the surrounding aspect. **Contrast** can occur in size and scale (big/little), textures (rough and smooth, hard and soft), sound and levels (high/low), color and light (dark/light), (bright and dull). Changes can be a gradual, or dramatic, but also of a more sequenced, stepped variation, like values of one color or lengths of rods or amount of numbers.

**Variety** evokes wonder, a new awareness and problem solving. Contrast invites comparisons of similarities and differences in diverse objects, elements, or ideas. Identifying what is similar and different is a foundational skill for reading, mathematics, science and social studies and a critical activity when creatively composing with words, paint, sounds, or movement. **Movement** is another way to produce variety in the classroom. This includes simulated movement as in the swirls on a pillow or actual movement as in a mobile or the blowing of sheer curtains or pathways through a space.

Many occupations and hobbies rely on an individual's ability to discriminate similarities and differences well. A car mechanic, paleontologist, bird watcher and flea market lover all must attend to the unique sensory aspects of differences. These universal capacities, to distinguish similarities and differences, are hard-wired in your brain. Your environment must invite each child to attend to something closely, notice changes or differences, and ultimately predict his or her next step. Dynamic variation makes the most of this capacity.

The large blue background on the left appears to provide contrast to pull this material filled space together. But the random array of disconnected items overpowers the dynamic background choice. How would you use dynamic variation more effectively?

Looking closely at a visually dynamic display above we notice it is made up of multiple (about 35) individual works. The display itself highlights the diversity of each child and how each one solved the same problem differently. Combing the individual works into a cohesive whole lets us recognize the similarities and supports looking for the differences.
## DYNAMIC VARIATION

<table>
<thead>
<tr>
<th>Evidence</th>
<th>DYNAMIC VARIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - Consistent</td>
<td>In my space, I deliberately vary and contrast <em>design aspects</em> of objects and materials to generate curiosity, wonder and sustained engagement.</td>
</tr>
<tr>
<td>2 - Partial</td>
<td>In my space, I often vary and contrast <em>design aspects</em> of objects and materials to generate curiosity and wonder, which sometimes leads to sustained engagement.</td>
</tr>
<tr>
<td>1 - Minimal</td>
<td>In my space, I rarely vary the <em>design aspects</em> of objects and materials to generate curiosity and wonder or sustained engagement.</td>
</tr>
<tr>
<td>3 - Consistent</td>
<td>I periodically change my space to reflect the passage of time in light, nature, or seasons to activate each child’s perceptual awareness.</td>
</tr>
<tr>
<td>2 - Partial</td>
<td>I might change my space to reflect the passage of time in light, nature, or seasons to activate each child’s perceptual awareness.</td>
</tr>
<tr>
<td>1 - Minimal</td>
<td>I never considered changing my space to reflect the passage of time in light, nature, or seasons to activate children’s interests and awareness.</td>
</tr>
<tr>
<td>3 - Consistent</td>
<td>In my space I effectively include multiple opportunities to sequence various natural and man-made objects using a <em>design aspects</em> such as color, sound, texture, shape, or temperature.</td>
</tr>
<tr>
<td>2 - Partial</td>
<td>In my space I often include multiple opportunities to sequence various natural and man-made objects using a <em>design aspects</em> such as color, sound, texture, shape, or temperature.</td>
</tr>
<tr>
<td>1 - Minimal</td>
<td>In my space I sometimes include opportunities to sequence various natural and man-made objects using a <em>design aspects</em> such as color, sound, texture, shape, or temperature.</td>
</tr>
<tr>
<td>3 - Consistent</td>
<td>In my space, dynamic variations in movement (actual or simulated) are carefully considered and balanced to create harmony and contrast within each space.</td>
</tr>
<tr>
<td>2 - Partial</td>
<td>In my space, dynamic variations in movement (actual or simulated) are often considered to create harmony and contrast within each space.</td>
</tr>
<tr>
<td>1 - Minimal</td>
<td>In my space, dynamic variations in movement (actual or simulated) are sometimes considered to create harmony and contrast within each space.</td>
</tr>
<tr>
<td>3 - Consistent</td>
<td>In my areas for individual learning and group gathering I deliberately use a <em>design aspect</em> to vary one from another to promote competence and meaning.</td>
</tr>
<tr>
<td>2 - Partial</td>
<td>In my areas for individual learning and group gathering I generally use a <em>design aspect</em> to vary one from another to promote competence and meaning.</td>
</tr>
<tr>
<td>1 - Minimal</td>
<td>In my areas for individual learning and group gathering I may use a <em>design aspect</em> to vary one from another to promote competence and meaning.</td>
</tr>
</tbody>
</table>

**DYNAMIC VARIATION TOTAL SCORE**
Exaggeration requires us to refocus on a particular design aspect, object, image, or space. We always see things in relation to another, but exaggerating a design aspect infuses the space with a sense of purpose or meaning. Exaggeration begins by editing or simplifying the space, eliminating all clutter and unnecessary objects, materials and furnishings. Exaggeration then can present the essential ideas in a zen-like fashion. Less IS sometimes more. When there are many, shells, rocks, shoes, boxes, the spaces between become important, like the spaces we leave to create words when we write. Exaggeration can be dramatic like a steep cliff or gradual like a continuous grassy incline.

Proportion is the relationship of one part to the whole or one part to another. Consider how to present complex ideas or activities by emphasizing or limiting a design aspect in the space. The size, scale or amount of color, texture, shape, sound, or lines can be exaggerated or eliminated for emphasis. Think about the “all white room” where any colorful object “pops”!

The emphasis on one aspect to the exclusion of another creates a point of focus, which directs our perception. An object is seen more clearly in relation to its surroundings if it is exaggerated. Imagine a black rock in a pile of white rocks. Some ways to emphasize or exaggerate an object or space are by isolating it, changing the scale, distorting some part of it, highlighting a design aspect, or paring it down to the essentials shape.

Large scale projects redefine spaces and provide an exaggerated focal point for a classroom. Doing big projects helps look at space and materials, like the size of the brush needed for coverage, differently.

This dramatic playspace contains a random, confusing variety of three play scenarios in one space -- veterinarian’s office, weather, and babies. There is not exaggeration or emphasis of one idea occurring. She is trying to make sense of the space by combing elements -- feeding a penguin in a high chair.
### Exaggeration

<table>
<thead>
<tr>
<th>Description</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my space, I regularly use exaggeration of an object, design aspect, material, or area to invite a child into the space and inspire their inquiry and engagement.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I usually use exaggeration of an object, design aspect, material, or area to invite a child into the space and inspire their inquiry and engagement.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I occasionally use exaggeration of an object, design aspect, material, or area to invite a child into the space and inspire their inquiry and engagement.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I purposefully use design aspects to create a point of focus by exaggerating a natural or man-made object, area, or activity that engages a child’s sense of wonder.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I sometimes use design aspects to create a point of focus by exaggerating a natural or man-made object, area, or activity that often engages a child’s sense of wonder.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I rarely use design aspects to create a point of focus by exaggerating a natural or man-made object, area, or activity that often engages a child’s sense of wonder.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I purposefully leave spaces empty or limit a design aspect to exaggerate a concept, idea or object to offer children room for invention.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I normally leave spaces empty or limit a design aspect to exaggerate a concept, idea or object to offer children room for invention.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I seldom leave spaces empty or limit a design aspect to exaggerate a concept, idea or object to offer children room for invention.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, design aspects are intentionally limited to exaggerate a relationships or connection between different learning activities, materials or objects.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, design aspects are sometimes limited to exaggerate a relationships or connection between different learning activities, materials or objects.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, design aspects are rarely limited to exaggerate a relationships or connection between different learning activities, materials or objects.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>I deliberately change the scale of my space or objects to stimulate children’s inquiry, creative engagement, and re-representation of their learning.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>I sometimes change the scale of my space or objects to stimulate children’s inquiry, creative engagement, and re-representation of their learning.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>I rarely change the scale of my space to stimulate children’s inquiry, creative engagement, and re-representation of their learning.</td>
<td>1 - Minimal</td>
</tr>
</tbody>
</table>

**Exaggeration Total Score**
SURPRISE is just that ....Surprising...awakening us with a jolt! There is an arousal that occurs that makes us change perspective, direction, emotions. Surprise can bring joy with the arrival of a bouquet of flowers or fear when a balloon pops. Surprise is created when we manipulating the expected. Just when we think we have it down, understand it, know how to do it, we are surprised. Changing the nozzle on a hose is rather routine, unless someone turns the water while we are changing it.

Surprise in repetition is a change that serves as an "attention getter", while refocusing your attention back on the initial pattern. Select and rotate the design aspect of artifacts, and objects creates new repeated patterns with similar expectations. The hand washing activity that that has lost its pizzas is now surprisingly new with a nail brush and round bar of soap, or a soap pump and sea sponge....same activity, but surprise!

The surprise found in a formal unified space creates opportunities to uncover new ways of seeing, finding fresh connections among design aspects and generating new problems to pose and solve. Imagine a book corner with soft floor pillows changed to child-sized rattan garden seating.

Unused or poorly used spaces usually suggest no variability or surprises. The purposeful and sometimes accidental manipulation of variations in design aspects can always create surprise. Children are very attuned to dynamic variations. Be open and aware of possibilities and “teachable moments” brought about by dynamic variations. A child brings in a handful of red tulips and they become the focal point and surprise on the art table with a orange mat under a blue vase.

Sometimes manipulating expectations best occurs through editing. This affords opportunities to emphasize new relationships and the addition of objects, materials, or artifacts that are new or unique. What surprises one child may or may not surprise another. Observe the perceptual sensitivities of your children and capitalize on their ability to be surprised, astonished, amazed. Find the things that surprise you, share them, and enjoy!
<table>
<thead>
<tr>
<th>SURPRISE</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my space, I purposefully create visual interest by manipulating <em>design aspects</em>, use unique materials, or rearrange furniture or spaces to re-launch an activity.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I occasionally create visual interest by changing <em>design aspects</em>, materials, or rearranging furniture or spaces to re-launch an activity.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I seldom change <em>design aspects</em>, discover unique materials, or rearrange furniture or spaces to re-launch an activity.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I intentionally seek out open-ended materials, especially natural and recycled objects to inspire creative connections, investigations, choices, and re-representation of ideas.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I generally like to incorporate open-ended materials, especially natural and recycled objects to inspire creative connections, investigations, choices, and re-representation of ideas.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I include open-ended materials, specifically natural and recycled objects on occasion.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I am thoughtful about selecting, rotating, and featuring materials, images, sounds, and objects that create surprise, wonder, and joy.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I frequently select, rotate, and feature materials, images, sounds, and objects that create surprise, wonder, and joy.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I do not change things like images, sounds, and objects that much.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I am responsive to the surprises children find or create and regularly incorporate accidental surprises and finds into our space.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I am receptive to the surprises children find or create and usually incorporate accidental surprises and finds into our space.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I am often reactive to the surprises children find or create and am unsure how to incorporate accidental surprises and finds into our space.</td>
<td>1 - Minimal</td>
</tr>
<tr>
<td>In my space, I intentionally edit, limit <em>design aspects</em> or leave spaces empty to encourage children to invent or pose new problems to solve.</td>
<td>3 - Consistent</td>
</tr>
<tr>
<td>In my space, I edit, limit <em>design aspects</em> or leave spaces empty so children can invent or pose new problems to solve.</td>
<td>2 - Partial</td>
</tr>
<tr>
<td>In my space, I seldom edit, limit <em>design aspects</em> or leave it empty for children to invent or design.</td>
<td>1 - Minimal</td>
</tr>
</tbody>
</table>

**SURPRISE TOTAL SCORE**
Notice the variety of textures in this infant play space: the smooth tile floor, a natural stepping stone path, soft carpet, a wood climber, the reflecting mirror, and a plastic climbing tunnel all leading to an open view of a grassy outdoor area. The design aspects use simplicity and natural color palette to unify this dynamically varied space.

Fall colors form an aesthetic backdrop for this playground on a college campus. Note the purple horse, a life-size artifact created by children for an earlier community event and the purple slide, both suggest movement.

Families, teachers, and children worked together to create this arbor with tree branches, colorful yarn, and recycled objects as part of a spring playground rejuvenation. Notice the variety and repetition within the one formal structure.
Step 3. Identify changes to enhance inquiry and aesthetic decision-making

Enter your totals here for each of the five Aesthetic Operations. Add them together to get your Aesthetic Assessment Score for this space. Look back at your reflections about the space, including your learning goals for children. Decide which environmental design aspects you want to enhance in this space using the Aesthetic Operations as your guide. Collaborate with your colleagues, children, and families about possible ideas; and begin to make changes to enhance the aesthetic aspects of your environment. Create a Designer’s Notebook to document your change process in photos and make notes of the changes you made in the space over time. Record children and adult responses in the redesigned space. Revisit the space as needed.

<table>
<thead>
<tr>
<th>Aesthetic Operations</th>
<th>Score</th>
<th>Strategies and Changes to Enhance the Aesthetic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Variation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exaggeration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surprise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL AESTHETIC SCORE (75 possible)</td>
<td>In the use of Aesthetic Operations in this Space you:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75-55 Designer Eyes!</td>
<td>55-35 Utilizing Design Ideas</td>
</tr>
</tbody>
</table>

Systematically repeat the process in other spaces in your center, classroom or school. Return to redesigned spaces over time. Feel free to copy the tool for each area you analyze. Keep a Designers Notebook with rubrics, photos, and comments and inspirations to chronicle your design changes and growth as a Designer of engaging, inclusive aesthetic environments.
**Aesthetic Environment Glossary**

**Aesthetic**- pertaining to the sense of perception, having a love of beauty, awakening.

**Aesthetic Operations** – Aesthetic proclivities defined by Dissayanake (2007, p. 783) as including, Repetition, Formalization, Dynamic Variation, Exaggeration and Surprise that combined create a sense of mutuality, belonging, competence, meaning and artifying; normal, natural human endowments part of the repertoire of every individual human from infancy to old age and realized in every art form.

**Balance** – relationship of design aspects creating various arrangements that promote harmony, completeness, or stability.

**Color** – Quality of an object with respect to light reflected by the object; perceptual theory of visual sensation; cultural and emotionally context.

**Composition** – A putting together of parts or elements to form a whole; a thoughtful combing based on aesthetic principles.

**Dialogue** – A conversation or exchange of ideas, images, design elements or energy; occurs between people, in nature, or creative activity.

**Dynamic Variation** – Involves clarifying, energizing, and heightening an effect by setting design aspects in opposition or contrast to show dramatic differences or movement e.g. a scream in the night, a pop of color in a white room, etc.

**Environmental Design Aspects** – Designate elements of the environment that can be manipulated to create a sense of place, for example: Color/light, Line/pathway, Texture/temperature, Shapes/models, Smell/taste, Sound/dialogue.

**Exaggeration** – Involves placing special importance upon something; emphasizes or limits an aspect of design, scale or proportion.

**Formalization** – Involves the balance, structure, and simplification in a space to create a sense of overall harmony or unity.

**Harmony** – The pleasing interaction or appropriate combination of design aspects; a mutually beneficial relationship between parts.

**Inclusive** – all embracing, including individuals with varying cultures, languages, abilities, backgrounds, and identities; comprehensive.

**Light** – Quality of value (lightness/darkness, brightness/dullness) relevant to natural or artificial sources of light.
Line – A continuous mark or movement made on a surface; edge created between objects; implies height, weight, rhythm, depth, and direction.

Pathways – Lines or shapes that capture the viewer’s attention and leads the eye into or through a space.

Pattern – An attempt to define and create order; organized repetition of design aspects (e.g. shapes, lines) that embellish a surface.

Proportion – The relative size of objects in a space.

Repetition – Involves repeated design aspects (e.g. color, lines, shapes) or expectations that create a rhythm or pattern of behavior.

Scale – A progressive classification of size, amount, importance or rank, which directs our looking or experience; relative proportion, degree.

Shape – Any two dimensional surface; outline or characteristic surface of a thing; the contour of an object, an enclosed space.

Sound – Vibrations sensed by the ear; reproduced music or speech; quality of audible music or speech

Surprise – Involves manipulation of expectation; novelty; unexpected.

Temperature – The relative degree of heat, emotion, or represented heat as in color.

Texture – The tactile quality of the surface of a material or object; visual or simulated representations of tactile qualities.

UDL – Universal design for learning involves preparing the environment so all individuals can use it appropriately with ease.

Unity – A combination or arrangement of parts into a stable whole; positive effect of establishing an aesthetic agreement between parts.

Value – The relative lightness or darkness of a color; density of grouped objects; in 3D work value is the result of cavities that create shadows.

References:
Bibliography


