

Garden Design Action Project

Introduction

A Garden Mosaics group in Sacramento CA, under the leadership of Ann Marie Kennedy and Daniela Tavares, contributed this Action Project. The Sacramento Garden Mosaics youth discovered that there was a long waiting list to get plots at a local community garden. They decided to design a garden at their school and to provide plots for community members. To help design the new garden, they interviewed gardeners at the existing garden.

Through the Garden Design Action Project, youth use landscape architecture methods to create a design for a new garden. For example, youth may want to create a plan for a school garden or a garden next to a community center. Regardless of where the youth build the garden, you should obtain permission from the necessary authorities.

It is important for youth to learn from experienced gardeners about considerations in designing a garden. You can adapt the Garden Hike Investigation to incorporate questions that will be helpful in designing a new garden. This will allow the youth to see what kinds of things are important to gardeners and to get ideas about their own garden.

Occasionally, the youth may have the opportunity to work with gardeners to redesign an area in an existing community or home garden. If this is the case, you can adapt the Garden Hike to include questions about the needs of the gardeners already in the garden. The garden manager should be able to help you determine whether there might be any interest in redesigning part of an existing garden.

In addition to learning about the needs and interests of existing gardeners, it is

important to learn about the ideas others who might use the garden. Landscape architects call this step "Client Needs." For example, in the case of a school garden, it will be important for the youth to talk to teachers, school officials, and other students to find out about their interests and what is possible at the site.

Unlike the other Action Projects where we present several ideas and a general framework for completing the project, here we include a set of steps that landscape architects use when they are designing the garden. After determining client needs and interests, landscape architects describe the existing site, including taking measurements and photographs and making sketches of plants and other features. Finally, they create their garden plan, which includes creating a design, drafting the plan, and making the final master plan. Thus, the steps in a Garden Design Action Project are:

Client Needs and Interests

1. Garden Hike
2. Other Client Needs

Site Description

3. Measuring the Site
4. Taking Photographs
5. Photo Collage
6. Sketching

Garden Plan

7. Design Charette
8. Draft Plan
9. Master Plan

Before starting the Garden Design Action Project, have your youth pay a virtual visit to the Sacramento Garden Mosaics page, which has photos of youth designing a new garden based on what they learned from community gardeners.

The Garden Design Action Project was written by Daniela Tavares, with assistance from Ann Marie Kennedy.

Clients Needs and Interests

Client Needs and Interests involves learning about what gardeners and other “clients” like about gardens in general and what they would like to see in the new garden.

1. Garden Hike

When conducting the Garden Hike as preparation for the Garden Design Action Project, the youth should pay particular attention to documenting any unique and cultural planting practices. Follow the instructions for the Garden Hike with the following modifications.

Preparing Youth for the Garden Hike

In the pre-activity discussion, describe how other youth and garden designers have interviewed gardeners to gain an understanding of the garden site. (See Sacramento Garden Mosaics page). Ask the youth in your group:

- Why do designers need to know about the people who will use the garden?
- How can interviewing an older person help better design the garden?
- How can observing the characteristics of a garden help us to understand the history and customs of gardeners and other people who might use the garden?

Next ask the youth to brainstorm a list of questions for the gardeners that will be useful in designing a new garden or area of a garden.

Conducting the Garden Hike

During the interview, point out how what the gardener is saying might be related to designing a garden.

After the Garden Hike

The youth also may want to incorporate questions that would be useful in designing a new garden into the Gardener Story. Have the youth make drawings to visually record their notes from the Investigations.

2. Other Client Needs

Once the youth have learned about what is important to gardeners, they

should make a list of other people who might use the new garden. They should brainstorm a list of questions for these individuals (for example, What kinds of plants do you like? Is there a way to design the garden so it is more accessible for you?). The youth should interview the other users to determine the answers to their questions.

Site Description

The site description involves four activities: (1) measuring the dimensions of the site where the youth will design the garden; (2) taking photographs of the site; (3) compiling the photos into a collage showing areas that meet and do not meet the gardeners’ and other users’ needs; and (4) identifying and drawing sketches of garden plants.

3. Measuring the Site

Time Needed

- Before meeting with youth: variable depending on time needed to obtain aerial photograph and base map
- Preparation with youth: 30 minutes
- Activity in garden: 2 hours
- Discussion: 30 minutes

Materials

For each group of youth:

- Aerial photograph of the site
- Base map of site or grid paper
- Measuring tape (100-200 ft or 30-60 meters)
- Clipboards
- Markers and pencils

Procedure

• *Before Meeting with Youth:*

1. Obtain an aerial photograph of your site. If your group is too large to gather around the airphoto, make an enlargement or make laser color copies of the photo for the youth.

2. If possible, obtain copies of a base map of the garden. School officials will likely have such maps for school grounds. For community gardens or vacant lots, these may be available through the gardeners or the city.

Reduce the original base map to fit on 8.5" x 11" paper. This will provide youth with the outline of the site and allow them to easily draw and label structures or other components of the garden onto the map.

3. If you are not able to obtain an existing base map, draw a rough outline of the site on paper and copy for the youth. Alternatively, draw an outline of the site on a chalk board, and provide the youth with grid paper to draw their own outline of the site.

• *Preparing Youth:*

1. Pass out copies of aerial photographs of the garden or have the youth gather around one enlarged airphoto. Help the youth identify landmarks surrounding the garden (e.g., tall buildings, parking) and the borders and entrance to the garden. Point out North and other directions on the airphoto.

2. Pass out the base map of the garden and help the youth label key landmarks, such as the entrance, on the map. If you don't have a base map, have the youth draw the border and entrance of the garden on the grid paper.

3. Divide the youth into teams of three (one note taker and two measurers) to take measurements and photos in the garden.

• *Conducting the Activity:*

1. Remind youth that they should be respectful and non-disruptive inside the garden. They should explain what they are doing and why to anyone who asks.

2. Pass out clipboards and the maps the youth prepared in the classroom.

3. Assign the youth structures and other features to measure in the garden, such as the border, buildings, water sources, etc. The youth should measure the size of larger structures (e.g., buildings) and the location of all features so that they can place them on their maps.

4. Youth should divide into their teams of three members and proceed to find their assigned features to measure.

5. Remind youth to note on their map any key components of the that can not be captured on a photo or a sketch garden (e.g., a hot area, a windy area, an open area, a change in slope).

• *After the Activity:*

1. Have the youth share their maps, measurements, and observations. They should add the features that other groups measured to their map, so each group has a map with all the features. Or they can make one composite base map with all the features.

4. Taking Photos

Time Needed

- Preparing the youth: 15 minutes
- Activity in garden: 90 minutes

Materials

For each youth group:

- Disposable or Polaroid camera (minimum 15 exposures)
- Copy of Photo Activity Checklist

Procedure

• *Preparing Youth:*

1. Group the youth into teams of two.
2. Provide a camera for each team with their names taped or written on it in a font that is fun for the youth.
3. Have the youth tape the Photo Activity Checklist to their camera.

• *Conducting the Activity:*

1. Instruct the youth to check off each feature as they photograph it. The order of photos doesn't matter. Tell them not to worry if they don't think they got a good picture of any particular feature. For each feature, they should go to the place that comes to their mind—not what they think other people would think of, or what they think you want them to answer.

2. The youth may want to include each other in the photos. They can stand next to the feature from the checklist and point to it.

• *After the Activity:*

1. If you used disposable cameras, label each film envelope with the team's name and send them off to be developed. (If possible, get double prints and give the youth copies of photos.)

5. Photo Collage

Time Needed

- Before meeting with youth: 30 minutes
- Activity: 1.5 hours

Materials

For each youth team:

- Newsprint
- Photos from the garden
- Pencils
- Markers
- Masking tape
- 3" x 3" post-its

Procedure

• *Before Meeting with Youth:*

1. For each youth team, divide a 24" x 36" sheet of newsprint into 15 sections and label each section with an item from the Photo Activity Checklist. Label each sheet with the team members' names and tape them on the wall, leaving room for youth to move around and observe the charts.

• *Conducting the Activity*

1. Explain to the youth that the purpose of the photo workshop is to share their impressions about the garden and to learn what the other youth thought about the garden.

2. Distribute to each team the envelopes with their developed photos. Then have the youth discuss with their partner where each photo should go on the newsprint, based on how they had earlier interpreted it in the garden.

3. Using masking tape, have the youth tape their photos in the appropriate box on their newsprint, one photo per section. Have the youth write a short comment on the newsprint about why they believe that photo should be under that category.

4. Have the youth look at the photos taken by other youth. Using the post-its, have them write a short a comment on five key pictures that stood out for them from the other groups, and post them on the appropriate newsprint.

5. Guide the youth in a discussion of what they saw and experienced during the activity. Make notes on a separate sheet of newsprint about consistent observations from the garden (e.g., the garden as a social place or a lonely place).

6. Tell the youth that making observations is part of how landscape designers analyze a site. Designers take photos of key components of the garden that catch their attention and use those pictures when they are working in their studio to remind them of how they saw and felt about the garden.

6. Sketching

Time Needed

- Before meeting with youth: 15 minutes
- Preparation with youth: 20 minutes
- Activity in garden: 2 hours
- Discussion: 45 minutes

Materials

For each youth:

- Sketching paper (8.5" x 11" newsprint or acid-free sketch paper drawing pads are ideal)
- Sketching/drawing pencils (2B, 4B, 6B, 8B highly recommended, available at art supply stores)
- Clipboards
- Paper for notes
- Pencils

Procedure

• *Before Meeting with Youth:*

1. Decide which concepts the youth need to go over from the Sketching Concepts Handout. If the youth are familiar with drawing/sketching techniques they can help out others who are new to drawing.

• *Preparing the Youth:*

1. Suggest a few quick exercises to help the youth learn about shadowing, texturizing, and letting loose their hand when sketching.

2. Discuss the different ways a designer can record information in the field, both visual and using words (e.g., photos, maps, sketching, and note taking). Explain that when they sketch, the youth should quickly jot down notes to capture the essence of the object being observed without getting into too much detail.

3. The sketching should focus primarily on plants, especially plants the youth are unfamiliar with, and on structures found in the garden (e.g., tool shed, shade structure, casita, bench). Explain to the youth that by sketching, they will add to the visual understanding of the garden they gained through taking photos.

• *Conducting the Activity:*

1. In groups of two-three, have the youth find a quiet spot that is not disruptive of any gardener and sketch a particular plant or structure in the garden.

2. Walk around and provide feedback to the youth on their sketches.

3. Have the youth show the drawings to the gardeners and ask them the names of the plants in English and in the gardeners' native languages. Have the gardeners also explain culinary and medicinal uses and cultural significance of the plants.

4. Have the youth take notes on what they learn from the gardeners.

Garden Plan

In this series of activities youth create a plan for the garden based on what they learned through talking with the gardeners, measuring the garden, and photographing and sketching plants

and other features in the garden. There are three parts to creating the plan, including the design charette, draft plan, and final master plan.

7. Design Charette

Time Needed

- Before meeting with youth: 30 minutes
- Activity: 90 minutes

Materials

For each youth team:

- Newsprint
- Base map of garden (24" x 36" recommended)
- Markers (different colors)
- Scissors
- Glue or tape
- Construction paper: green for different circular forms for trees, shrubs; brown for paths, planting boxes, structures; and blue for water features (ponds, fountain).

Procedure

- Before Meeting with Youth:

1. Prepare copies of the base map the youth made in Measuring the Site on 24" x 36" newsprint. Include existing objects that are relevant to designing a new garden on the site, and that cannot be removed (e.g., trees, plant beds, water sources). The youth will use the base map to make their initial site plan.

Conducting the Activity

1. Explain that the purpose of the design charette is to brainstorm ideas for the garden plan. Drawing from the ideas they brainstorm, the youth will come to a consensus on what is important for the garden plan.

2. If you are working in an existing garden, guide the youth in a discussion of what part of the garden they might help by developing a new design. Have them consider what needs to stay as is and what the gardeners have expressed an interest in or concern about. Provide some examples of the photos the youth took at the garden to highlight important elements, both positive and

negative, in the garden. Issues they might discuss include:

- unique cultural practices
- plant needs (e.g., water)
- needs of the gardeners, their children, and other visitors to the garden
- areas with poor soil
- non-cultivated areas of the garden
- areas that get lots of sunlight and areas that are shaded by buildings.

3. If you are working in a site that is not presently a garden, guide the youth in a discussion of what they might like to include in their garden. They should consider what needs to stay the same and what might be changed at the site, what gardeners find important, and the interests of potential users of the new garden (e.g., students and teachers for a school garden).

4. Create a poster of brief bullets that capture the essentials of what youth discuss and what you remember from previous discussions and observations.

5. Help the youth decide what aspect of the garden they will create a design for.

6. Divide the group into teams of four-five members. Provide each team with a manila envelope with construction paper, scissors, glue/tape, and markers. Have the teams label their envelope with the names of the members.

7. Have the teams brainstorm designs that might help the garden and the gardeners. In addition to drawing from what they learned in the garden, they can think back to ideas from previous exposure to different landscapes (e.g., schoolyards, parks, other gardens).

8. To create an initial site plan, have the youth mark-up their copy of the base map with their ideas and place the construction paper shapes on the map with text explaining the shapes. Their site plan should begin to come to life!

9. Have the youth glue or tape down the construction paper shapes on this

initial site plan and label it with their names.

10. Allow youth to walk around to view each other's site plans and to jot down notes about their observations.

11. Hold a discussion of the various design ideas.

8. Draft Plan

Time required

- Before meeting with youth: 30 minutes
- Activity: 4 hrs

Materials

For each youth:

- Engineering ruler (available in art store) or regular ruler
- Mechanical pencils (available in art store, provide a consistent line and are easily erased)
- T-square and triangle to enable youth to create angles and squares (available in art store)
- White erasers (erase without smudging, available through art store)
- Base map or 8" x 11" paper
- Transparency paper (e.g., tracing or other flimsy paper, 18" x 24" recommended, available through art store)
- Masking tape
- Newsprint (18" x 24" or 24" x 36")

Procedure

• Before Meeting with Youth:

1. Because it may be expensive to buy engineering rulers for each student, you may want to obtain one ruler and copy the scale (side of the ruler) the youth will use for the site plan. Then the youth can cut out the copied scale and tape it on top of an inexpensive ruler.

2. Prepare copies of the base map the youth made in Measuring the Site on 24" x 36" newsprint. Include existing objects that are relevant to designing a new garden on the site, and that cannot be removed (e.g., trees, plant beds, water sources). The youth will use the base map to make their initial site plan.

Conducting the Activity

1. Help the youth become acquainted with the engineer scale. Each edge of the ruler has a scale showing feet per inch. This amount is usually a multiple of ten (e.g., 20' per 1", 30' per 1", etc.). So, using a 60 scale, 60 feet on the site would measure 1 inch on the site plan. If you are developing a plan for a smaller site, you can divide by 10 so that 6 feet on the ground = 1 inch.
2. If a base map drawn to scale is already available, help the youth become acquainted with the scale provided. Make them aware of actual measurements in the garden, such as the dimensions of walkways, planting beds, and benches. Have them sketch these items using the scale chosen. If they are unfamiliar with scale, you may want to have them measure structures, sidewalks, etc. and then draw them to scale.
3. If a base map drawn to scale is not available, determine the perimeter of the garden, based on the measurements taken during Measuring the Site. Once the dimensions are sketched out on a regular 8.5" x 11" paper, help the youth choose a scale that captures the same dimensions to scale on a 18" x 24" or 24" x 36" sheet of paper. Use a T-square and triangle to achieve perfect 90 degree corners.
4. Tape a piece of tracing paper or other transparency, slightly smaller than the base map, onto the base map. Tape the base map to the table with masking tape.
5. Explain to the youth about line hierarchy. When drafting structures or walkways, the width of the line should reflect the thickness and importance of the structure. For example, a building will have the heaviest line since it is a solid and thick structure. A bench should be thinner than the building but thicker than a line for a walkway. To make thicker lines, press on the hand that holds the pencil.
6. Explain to the youth about shadows, which should vary from light to medium to dark, depending on the size or thickness of the structure and the way light falls on the plants and other objects.
7. Distribute the pencils, erasers, and paper necessary to begin tracing the site plan onto the transparency. Instruct the youth to create the site plan from the initial plan they made in the design charette.
8. Youth should roughly, and very lightly, lay out on the site plan transparency the major components from their design charette. This may include new pathways, beds, gathering areas, and other features.
9. Next youth should draw the structures and pathways to scale using their scale ruler, never forgetting to keep track of what scale they are using.
10. Instruct the youth to cover the part of the plan they are not working on with paper to prevent smudging.
11. Instruct the youth to distinguish between different types of plants by using different textures (see Sketching).
12. Throughout the activity, remind the youth about line hierarchy and the use of shadows.
13. Ask youth to clean up and erase any smudges and messy lines on their site plan.
14. Youth should make a neat and accurate border around their plan by using their triangles and t-square making a perfect 90 degree square.
15. Instruct the youth to leave enough room at the bottom of their site plan to put the title of the project (in the middle), the name of the youth organization and date (in the left bottom corner), and the scale that was used along with an arrow showing

North (bottom right corner). Youth can either type or neatly print out the text, making sure they keep their writing consistent.

16. Youth should label objects and structures in the garden, small enough as to not distract from the line hierarchy of the plan, but consistent with the importance of the object or structure.

17. The text for the site plan title should be the boldest, the name and scale should be less bold, and the text inside the plan should be smaller and not distract from the lines. Text should always face the same way.

18. Collect the site plans taped over the base maps and have them copied onto bond paper, which is more professional and lasts longer than newsprint. Youth can keep the original black and white drafts.

9. Master Plan

In this activity, the youth will complete their site plans, including a master plan, sketches, maps, and written notes. They will then be ready to present their plans to the gardeners and other interested people.

Time Required

- Before meeting with youth: 30 minutes
- Conducting the Activity: 2-4 hours

Materials

For each youth:

- Their own draft site plan, copied onto bond paper
- Coloring media (green colors are popular for gardens): soft pastel (soft visual effect), oil pastel (bold visual effect), colored pencils (detailed visual effect), watercolors (romantic visual effect)
- Fixative or hair spray if using soft pastels
- Foam board the size of the plan (may need cutting blade to cut foam board)
- Adhesive spray

Procedure

• Before Meeting with Youth:

1. Using a sharp, strong cutting blade, prepare foam board the same size as site plans.

• Conducting the Activity

1. Remind youth that the purpose of the master plan is to present a visual image of the garden to the gardeners and other interested people.

2. Introduce youth to the different media and allow them to experiment and choose the media that best suit them. If available, show the youth plans using different media.

3. Go over drawing concepts, including:

• Shadowing

Which side sun is coming from; south side gets the most light; north gets darker colors due to shadowing; distinction between light, medium, and dark colors; transition from very light colors to very dark/shadowy colors.

• Color scheme

No more than 4-6 colors should be used on a plan; more colors make the drawing “muddy;” mix and match colors to create new colors.

• Mix-match media

Use color pencils to highlight detail on pastel work; use pencil to highlight detail in any medium.

• Neatness

Keep the site plan clean at all times by putting scratch paper on top of area that is not being drawn.

• Boldness

Use bold colors to highlight important parts of plan through pressure on the pencil, color pastel, and using more detail and shadows.

4. Distribute the youth’s site plans copied onto bond paper and have them complete the master plan using the various media. Provide enough scratch-paper to cover portions of the site plan they are not working on and to test the media as they go along.

5. Ask youth to erase any accidental smudges.

6. For youth who used soft pastel, have them spray fixative on the plan to prevent fading and smudges. Hair spray also works but is heavier and smellier.

7. Pass out the foam boards and help youth glue their master plan down with the adhesive spray, following instructions on the can. Spray the adhesive onto the board first and then beginning at one side, slowly and carefully attach the master plan, making sure that no air bubbles appear.

8. Set up an appointment to meet with the gardeners and other interested individuals for a final presentation of the design project.

Photo Activity Checklist

Small font for taping on camera

1. A place to rest
2. A place where you would like to hang out
3. A place to talk with others
4. A lonely place
5. A place to play games (for example, cards, horseshoes)
6. An exciting place
7. A place where you would like to walk
8. A beautiful place
9. An ugly place
10. A boring place
11. An unsafe or stressful place
12. A safe, peaceful place

Larger font for cutting out and putting on newsprint

1. A place to rest
2. A place where you would like to hang out
3. A place to talk with others
4. A place to play games (for example, cards, horseshoes)
5. A lonely place
6. An exciting place
7. A place where you would like to walk
8. A beautiful place
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Adapted from: Childress, H. 2000. Landscape of Betrayal, Landscapes of Joy: Curtisville in the Lives of its Teenagers. Albany: SUNY Press.

Sketching Concepts Handout

If lines give structure and content to a drawing, then it is light, shade and shadow that make a drawing come alive. DaVinci advised: "You who draw from nature, look carefully at the extent, the degree and the form of the lights and shadows." Tone and shadow breathe life into a landscape drawing while giving it depth and atmosphere. Landscape drawings are usually a combination of line and tone (Sullivan, 1997).

Tone

Tone refers to light and dark in a drawing. You can integrate light and dark to create a range of tones. To produce tone with a pencil or charcoal, place the strokes close together to create subtle, smooth, even gradations. With pen and ink, you apply light parallel and cross-hatched lines.

Hatching

Hatching refers to short parallel lines repeated in patterns. You can make tones appear light or dark by changing the variety and spacing (tight or loose) of the hatching. For added character, you can curve the hatch lines slightly or place them at different angles.

Cross-Hatching

Cross-hatching is a variation of hatching, but can produce a wider range of tones. To create cross-hatching, draw a series of short parallel lines. Then draw a series of lines on top of and at right angles to your first set of lines. Keep repeating this process by overlapping the hatched lines at a slightly different angle each time until you produce almost total blackness.

Light

Before beginning a drawing always note where the light is coming from.

Exploiting the light will illuminate your landscape drawing and make it appear three-dimensional. Work out the composition of your drawing using light lines, starting with the light areas and then adding the shade. The source and the quality of the light will affect your gray tones.

Shadow

The area of an object opposite the light source is shaded. The cast shadow generally appears darker than the shaded side of the object, and the shadow is darkest along its leading edge. The shadow also will reflect the form of the object that is casting the shadow.

Texture

The landscape contains an endless variety of textures. You may want to look at some famous paintings, such as those by Vincent Van Gogh, to get an idea of how a landscape artist can create an amazing array of textures. Every element in the landscape has texture, and you should reflect these unique textures in the drawing to give each element a separate identity. At the same time, develop a textural style that unifies the picture and avoids “chaos” in the drawing. Shadows reflect the various textures of the landscape upon which they are cast. Texture is more than just pattern—it is lively, interwoven lines that remind the viewer of the sense of touch and stimulate the imagination.

Adapted from: Sullivan, C. 1997.
Drawing the Landscape. Van Nostrand Reinhold Publishers, pp. 106-125.