This booklet describes map-making in a step-by-step process with illustrations of each procedure. The volume contains the following chapters or sections: (1) "The Making of a World Map"; (2) "The World Map Key"; (3) "Appendix I: Map-making Workshop"; and (4) "Appendix II: Project Evaluation." (EH)
THE WORLD MAP PROJECT

Map-making Procedures for Primary School Educators

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THE WORLD MAP PROJECT

Map-making Procedures for Primary School Educators

by

PCV Barbara Jo White

Peace Corps
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July 1994
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THE MAKING OF A WORLD MAP

SO, IF IT'S SO EASY TO MAKE A WORLD MAP, HOW COME IT TAKES A WHOLE BOOK TO EXPLAIN HOW TO DO IT?

GOOD QUESTION. IT TAKES A WHOLE BOOK TO EXPLAIN HOW TO MAKE A WORLD MAP BECAUSE THE METHODS ARE EXPLAINED IN DETAIL WITH LOTS OF DRAWINGS SO THAT EVERYONE WILL BE ABLE TO MAKE A WORLD MAP. SO, DON'T LET THE DETAILED DESCRIPTIONS BOW YOU DOWN. WOULD THE AVERAGE PERSON SAY (AND MEAN IT) THAT YOU ARE BRIGHT, CREATIVE, GIFTED, EXCEPTIONAL, WONDERFUL, TALENTED, INTELLIGENT AND GENERALLY REALI SOMETHING ELSE? IF SO, THEN MAYBE YOU ONLY NEED TO GLUE THIS BOOK FOR THE MAIN CONCEPTS (AND THEN, IF YOU RUN INTO A SNAG DURING THE MAP-MAKING PROCESS YOU CAN CHECK THE BOOK). THE MAP YOU'LL MAKE IS INDIVIDUAL, SO FEEL FREE TO GO ABOUT MAKING IT YOUR OWN WAY!

BASIC STEPS IN MAKING A WORLD MAP

1. PREPARING THE WALL AND TESTING THE PAINT FOR ADHESION
2. DRAWING THE GRID ON THE WALL (MASKING TAPE METHOD → RULER METHOD)
3. DRAWING THE MAP (NOT DETAILED → VERY DETAILED)
4. PAINTING THE MAP (NOT DETAILED → VERY DETAILED)
5. LABELLING THE COUNTRIES

APPROXIMATE PERSON HOURS

1 HOUR
5 → 15 HOURS
15 → 25 HOURS
20 → 30 HOURS
4 HOURS
TOTAL: 45 → 75 HOURS

CHECKLIST FOR THE MAP KIT

WHAT SHOULD BE IN THE MAP KIT (BEYOND THIS BOOK AND MAP)

3 → 5 RULERS
5 PENCILS
2 ERASERS
1 ROLL OF MASKING TAPE
1 7 FOOT STRING WITH A ROCK TIED ON
½ QUART OF WHITE ACRYLIC PAINT
2 OUNCES EACH OF RED, BLUE AND YELLOW ACRYLIC PAINT
5 → 10 BRUSHES OF VARYING WIDTHS (⅛ IN. → ⅜ IN.)
3 → 5 PERMANENT MAGIC MARKERS OF VARIOUS SIZES

WHAT YOU'LL PROVIDE
SOAP, WATER, AND A BUCKET OR BIG CANS
SOME OLD PLASTIC CUPS OR TIN CANS
SOME OLD RAGS, NAPKINS OR NEWSPAPER

1 BEST COPY AVAILABLE
LOCATING THE MAP

If you are painting the map on a wall at the school, then ask the school director and teachers where they would like to have the map. Some good places might be a covered entryway, classroom or school auditorium (meeting room). However, some major considerations are accessibility and visibility. It's best to put the map where classes will have access to it during the day without disturbing other classes. Also, it's a good idea to make the bottom of the map at floor level so that your average primary school student 4 ft tall will be eye level with the equator of the 9 ft tall world map.

PREPARING THE WALL

Now that you've got a good wall for the map, you might want to clean it up a bit. With some soapy water and a scrub brush, clean an area that is 8 ft tall by 10 ft wide. Remove any old glue with an old knife, rock or piece of tin can.
TESTING THE PAINT FOR ADHESION

Test the paint on the cement wall for adhesion by sticking a piece of masking tape to the wall. Pull it off and see how much paint, if any, comes off with the tape. However, if the paint rubs off with just your finger, so will the map, so look for another wall. If the paint only comes off with the tape, it's not ideal but you can still make the map though you will need to sand smooth the chipped and flaking paint areas.

DRAWING THE GRID

The basic goal of drawing the grid is to end up with what looks like a giant sheet of graph paper on the wall. Your wall grid will be 36 blocks tall and 50 blocks wide, for a grand total of 1800 blocks. There's a variety of ways to actually draw the grid on the wall, from the old fashioned ruler method to the new fangled masking tape method.

To ones that haven't been thought up yet... like yours! Both methods included here use a basic 1 foot ruler. Of course, if you have a yardstick, you'll finish 3 times as fast (and if you have an overhead projector and electricity, skip the grid and draw the map directly on the wall)

Basic steps in drawing the grid:
1. Center the map
2. Set the lines (bottom, right and left hand, and vertical check lines)
3. Choose method of making horizontal and vertical grid lines
   
   Ruler method, masking tape method or your own method
4. Number the grid blocks
BLOCK SIZE

The size of each block should be 6 cm per side for a total map size of 216 cm by 360 cm. (7 ft. 1 in. by 9 ft. 10 in.) or make each block 2 1/2 in. per side for a similar map size of 7 ft. 6 in. by 10 ft. 5 in.) with blocks 6 cm per side, you will be able to fit the names of most of the smaller countries in the actual painted country on the finished map. This makes labeling much easier. For this reason, blocks smaller than 6 cm per side aren't advised unless you have no other place to put the map.

CENTERING THE MAP

In the covered entry ways of most schools, you can center the map using the roof apex point. Hang the string and rock from the approximate center, then measure 5 feet (150 cm) to the left of string, make a mark. Move 1 foot down on center string. Measure 5 feet to left and make a mark. Now you have 2 left hand points.

In many school auditoriums (meeting rooms) there is a block post against the wall from the roof apex point to the floor. You will need to center your map on one side or the other. Measure the total distance from center to left or right (13 ft.) subtract map length (10 ft.) take remainder (3 ft.) and divide by 2 = 1.5 ft. Measure in from left 1.5 ft. and make & mark. Move down 1 foot, measure 1.5 ft. in and make another mark. Now you have 2 left hand points.
THE NEW FANGLED MASKING TAPE METHOD

If you bothered to try the old fashioned ruler method of grid making, you'll know why it was so necessary to invent the new fangled masking tape method. Using the ruler method, you have to make wall marks by 0, 6, 12, 18, 24 and 30 cm. over 120 times. Gets old after a while, too. You start developing a strong dislike for multiples of 6 (which isn't fair, is it?) but with the masking tape method, you simply mark pieces of 7 foot long masking tape at 6 cm. intervals one time (making one long ruler), then stick 2 of them to the wall (parallel to each other and 1 ruler width apart) and take your ruler and zip...zip...zip draw lines between your tape marks. Presto! In a few minutes, you've got a 7 foot long section of your grid. Whereas the ruler method takes 2 people a whole day, the masking tape method is 3 times as fast (so you and a few friends can finish well before lunch!)

BASIC STEPS IN THE MASKING TAPE METHOD

1. Mark the four 7 foot long pieces of masking tape (of 1 in width)
2. Stick the tapes to the wall and make horizontal and vertical grid lines

Remember how you tested the paint for adhesion? Well, if your paint came off with the tape then you'll notice when you're sticking the masking tapes to the wall that after 1 time, they just don't stick anymore. That's because there's paint stuck to the back of them (since the paint comes off the wall with tape!) you can still use them but you will need to stick new pieces of 3 inch masking tape at both ends of your marked 7 foot tape to hold it in place each time you move it (the old tape the tape trick!)

MARKING THE MASKING TAPES

1. Stick 4 pieces of 7 foot long masking tape to the wall with an inch crossing the left hand line. Join the left hand line marks above and below the tapes to set the 0 tape line. Make marks at 0, 6, 12, 18, 24 and 30 cm. on top and bottom tapes beginning at the 0 tape line.

2. Then, turn your ruler vertically and join your marks. The lines should be parallel. Do your best to mark the tapes accurately, it's your 'ruler'!
To check your work, the vertical check line at 90 cm from left should coincide with your 15th tape marks. With marks every 0.6 cm, the 15th tape marks lie at 90 cm from the 0 tape line (left hand line). If not more than \( \frac{1}{2} \) cm off, don't worry. Split the difference with your first 15 lines so that each is off a fraction of a millimeter. Your 30th tape marks should coincide with the vertical check line 180 cm from the left hand line. Now you can begin to draw the grid's horizontal and vertical lines.

**SPLITTING THE DIFFERENCE**

If your 15th tape mark lies to the left or right of your vertical check line at 90 cm from left, measure to make sure this line is 90 cm from the left hand line. If it is, your tape marks are off and you need to split the difference, making marks a little left of your original tape marks. If you don't split the difference among the first 15 blocks, the first 14 blocks will be too big, and the 15th block way too small.
SETTING LINES:

BOTTOM LINES, LEFT HAND LINES, VERTICAL CHECKLINES, RIGHT HAND LINES

1. **BOTTOM LINE**: Make a bottom line 1 inch from the floor or 1/2 inch from the tiny ledge where the concrete wall meets the 4 inch tile baseboard. Easy, huh?

2. **LEFT HAND LINE**: To set these remaining lines, you get to use the string and rock manual vertical finder. Luckily for us (and Newton too) a string with a rock tied on it will hang vertically due to gravity. Using this, we will be able to keep our vertical grid lines straight. Making sure they don’t start leaning left or right of vertical. Be sure to use a rock that is flat on one side so it will swing freely next to the wall. Whichever method you used to center your map, you should have 2 points marked on the left hand side of the wall. Tape the string and rock to the wall so it lies on both points or splits the difference between them. You may need to put your finger between the wall and string so it has more clearance to move freely. Wait for the rock to stop swinging (make sure the wind isn’t blowing!) and make a mark every 30 cm (1 foot) where the string hits the wall. Join the marks and recheck line with string and rock to make sure its vertical.

3. **VERTICAL CHECKLINE 90 CM FROM LEFT**: Measure from new left hand line 90 cm (15 blocks worth of space at 6 cm/Per block) make a mark. Repeat 1 foot down. Hang your string and rock over the two marks and make a line. Recheck it!

4. **VERTICAL CHECKLINE 180 CM FROM LEFT**: Same as step 3. Only 30 blocks worth of space (180 cm) from left hand line.

5. **RIGHT HAND LINE 300 CM FROM LEFT**: Same as step 3 only 50 blocks worth of space (300 cm) from left hand line.
**THE OLD FASHIONED RULER METHOD OF GRID MAKING**

1. **Horizontal Grid Lines:** Working from the bottom left-hand corner, place the ruler so it rests on the tiny ledge where the concrete wall meets the tile kickboard. Make marks at 0, 6, 12, 18, 24, and 30 cm. Move ruler 1 foot to the right and make another set of marks.

2. Then, turn your ruler horizontally and join your marks. The lines should be parallel. (If your were more than 1 foot apart, you'll find a row that your 1 foot ruler won't reach.) Continue steps 1 & 2 up wall and to right.

3. **Vertical Grid Lines:** With your ruler, line 0 cm up with the left-hand line. Make marks at 6, 12, 18, 24, and 30 cm. Move ruler 1 foot up and with 0 cm on left-hand line, make another set of marks.

4. Then, turn your ruler vertically and join your marks. The lines should be parallel. If not, fudge a little! Move up wall and to the right.
Horizontal grid lines: stick tape 1 just left (outside) of left hand line. Stick tape 2 1 foot to the right. (If more than 1 foot away, you won't be able to join your marks using a 1 foot ruler). Stick tape 3 1 foot to the right of tape 2 and stick tape 4 just left of your 90 cm. vertical check line. The most important thing about setting the masking tapes is that one of the 6 cm. tape marks **MUST** lie on your bottom line. If one tape (see tape 5) is set slightly above the bottom line, your row of horizontal lines will rise. If tape (see tape 6) is set slightly below the bottom line, your row of horizontal lines will fall. Once tapes are set, simply join marks using a ruler or straight edge.

**TAPE STRETCH**

Suppose you've set your tapes making sure that one of your 6 cm. lines lies on the bottom line, but your rows of lines are still rising. First of all, don't panic! Chances are, you're only suffering from the dreaded tape stretch. Did you know that with a little tug, you can stretch a 30 cm piece of tape to 31.5 cm? After pulling on your 7 foot tape to stick it in place time after time, it could be 7 ft. 3 in. long. Your 6 cm. tape marks could be nearly 6.5 cm. apart by now. Put your ruler up to your tape and check. If it's only a little off, fudge when you join your marks, or remark your tape.
**VERTICAL GRID LINES**

**VERTICAL GRID LINES**: Stick tape 1, horizontally just above or below bottom line. Stick tape 2 just under the 5th line up from the bottom line (this is 1 foot away). Stick tape 3 1 foot up (just under 10th line up from bottom.) Remember, this time, one of your 6 cm tape marks (like the 0 tape line, for example) must lie on the left (or right) hand line. Also, the 15th and both tape marks should coincide with the vertical checklines at 90 cm. and 180 cm. From left, if you're off, your rows of vertical lines will lean left or right, so split the difference and join marks with a ruler.

**NUMBERING THE GRID**

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Number your grid blocks (36 down, 36 across). You should do this in 2 or 3 places on the grid. Also, make heavier grid lines to show the different pages of the map (see world map key). Also put world map page numbers on your grid.
DRAWING THE MAP

The basic goal of drawing the map is to end up with a giant world map drawn on your big wall grid (so that it looks like a bigger version of the world map key on page) with the method of using a grid or quadrants as a guide you can draw the whole world freehand. It's really quite easy, though it sounds like a big undertaking, especially if you consider yourself less artistic than Michelangelo (who could have used a grid to draw and paint the Sistine Chapel)! Anyway, the grid helps keep the country borders and distances between countries and continents in the right perspective (enlarging the form without changing the proportions). Almost everyone can draw well using the grid method, but to find out just how adept you are, take this simple test.

A SIMPLE TEST

First, look in the original map block. Now, look in the "enlarged once" block. And see how the form was enlarged, though it still retains its original shape and proportions. Now, try it. Hey, you're pretty good at that, huh? Do you realize that in a mere 20 seconds, you just drew over a thousand miles of rugged treacherous North Alaskan coastline?

MATERIALS FOR DRAWING THE MAP

1. The world map key and the 28-page world map
2. Masking tape to tape map pages to wall where you're drawing
3. Some pencils and a couple of good erasers
4. A knife so you can keep those pencils sharp!

About 3-5 people can draw on the grid at one time, but first be sure to check your map drawers' work to make sure they've got a grip on the grid method of drawing. Then, give each person a page of the map and go to it! It will take 3-4 people 1½ to 2 full days to draw the whole world! Above all, have fun!
DRAWING HINTS AND PRACTICE BLOCKS

The first thing to do is notice where your country borders cross your original map block. Make marks in proportionately similar places on your wall grid block. If it's easier for you, work your way in from these marks making similar type squiggles in the country borders as in the original map block.

When things get more complicated, you still use the same principles. First, you judge where your country borders lines cross the block, make those marks on your block on the wall, then fill in your border lines between these marks. You'll like drawing Africa because a lot of Northern countries are geometrically shaped and have long straight lines as borders!

Proceed as above, first making marks where the country borders cross the block, working your way in. And equally important are the junctions where country borders meet (in above example, there are 4 circled country junctions) keep these in the same relative proportions as in the original map blocks and Europe will come out looking like Europe!
SUBDIVIDING TOUGH BLOCKS

Whatever you do, don't let the blocks get you down! All you need to do is further sub-divide your block into 4 little blocks and you'll be able to get those small countries like Albania right where they should be.

Check your work

One of the biggest map-making disappointments you'll ever face (and a possible life problem too) is being off one. This traumatic experience begins with drawing a really hard page (like page 2 or 11) and 2 hours later, you find out that you're off one, that you should have started drawing those Canadian Islands just to the right of where you did. When this happens - switch pages with someone else and start anew... but check to make sure you're in the right block to start with!
MAP DRAWERS' ILLNESSES

MAP DRAWING ERRORS ARE CAUSED BY ILLNESSES THAT FALL INTO 2 MAIN CATEGORIES ACCORDING TO THE MAP DRAWERS' PSYCHE. THE FIRST IS BLOCKBLINDNESS AND THE SECOND IS THE MORE SEVERE CARTOGRAPHIC COSMIC PSYCHOSIS.

1 BLOCKBLINDNESS:

SYMPTOMS: People who suffer from Blockblindness have a great deal of difficulty recognizing the separate blocks of the grid they have just drawn. A Blockblinder also has difficulty seeing the relative size of proportions (and other matters of size) of the small map to the big wall map. Often, form may be correct in a country but the area of a country disproportionately and distorted (case in point: see England below).

TO DIAGNOSE: Have person suspected of blockblindness draw Europe. If it comes out looking like a nylon polyester sweater that got thrown in the dryer on high (i.e. similar form very distorted and out of proportion) you have a blockblinder on your hands. But you can help.

TREATMENT: Tactfully and gently remove pencil from hands of blockblinder. Though blockblindness strikes 15-20% of all people regardless of nationality or gender, blockblinders make wonderful map painters.

A blockblinder sees this:

... and draws that:
2 CARTOGRAPHIC COSMIC PSYCHOSIS:

SYMPTOMS: People who suffer from cartographic cosmic psychosis have contracted the most severe map drawing ailment. Other worlders, as the sufferers are called, display the lowest aptitude for map enlarging using quadrants. Other worlders draw things that you don't know where they came from. They often display a feeling of true blissfulness and a sense of purpose (known only to themselves).

TO DIAGNOSE: Have a person suspected of cartographic cosmic psychosis draw any part of the map. The illness will make itself apparent rather quickly. Look at the work on the wall and compare it to the actual map. If your first thought is, "What... is... that?" Chances are, your map drawer is an other worlder, who will be able to explain exactly what everything is on the wall and what it corresponds to on the actual map. Scary. Cartographic cosmic psychosis, more rare than blockblindness, strikes only 5% of the general population and knows not gender nor nationality.

TREATMENT: In the same gentle manner as with blockblindness, remove pencil. With a huge canvas and some nice oil paints, the other worlder can draw and paint a personal version of the world map and sell it for a lot of money in a fancy modern art gallery. Other worlders make fine map painters and map watchers as well. Fortunately, this illness and the blockblindness extend only to map drawing and not to other activities of life.

[Diagram of a map showing the United Kingdom and France]
PAINTING THE MAP

THE BASIC GOAL OF PAINTING THE MAP IS TO END UP WITH A BEAUTIFUL COLORFUL WORLD MAP ON THE WALL AND TO HAVE A GOOD TIME IN THE PROCESS! AND MOST EVERYONE LIKES TO PAINT AND CAN GET INVOLVED. (THE YOUNGER KIDS CAN ALWAYS HELP OUT PAINTING THE OCEANS) DON'T FRET OVER TRYING TO PAINT THE MAP PERFECTLY. EACH WORLD MAP IS DIFFERENT AND HAS ITS OWN PERSONALITY, SO ENCOURAGE OTHERS TO HELP. ANYWHERE FROM 1→5 PEOPLE CAN PAINT ON THE WALL AT THE SAME TIME. IT WILL TAKE 3 PEOPLE FROM 1½→3 DAYS TO PAINT THE WHOLE WORLD DEPENDING ON YOUR STYLE OF PAINTING THAT IS, 1½ DAYS IF YOU HAVE A LOOSE LESS DETAILED STYLE AND 3 DAYS IF YOU ARE METICULOUS (SERIOUSLY PAINTING EACH AND EVERY FJORD OF NORWAY)

BASIC STEPS IN PAINTING THE MAP
1. GATHERING YOUR MATERIALS AND MIXING COLORS
2. MARKING YOUR MAP WITH PAINT DOTS
3. DIRECTING THE TRAFFIC (ARTIST TRAFFIC)

MATERIALS FOR PAINTING THE MAP

1. PAINT BRUSHES: 5→10 BRUSHES OF VARYING WIDTHS (INCLUDING A 1½ INCH WIDTH OCEAN BRUSH)

2. PAINTS OF THE ACRYLIC KIND FOR CEMENT WALLS. YOU'LL NEED RED AND BLUE AND YELLOW AND WHITE. YOU MAY NEED TO MIX OTHER COLORS, FOLLOW THE RECIPES!

3. OLD PLASTIC CUPS OR TIN CANS FOR MIXING PAINT AND CLEANING YOUR BRUSHES.

4. SOAP AND WATER FOR CLEANING BRUSHES.

5. OLD NEWSPAPER OR RAGS FOR WIPING YOUR BRUSHES ON.
MARKING THE MAP WITH PAINT DOTS

You'll want to mark the map with paint dots just to make things a little easier. To do this, just pull out your color coded laminated map and make dots in the countries the same color. If you're feeling creative, ignore the map and you and your gang of artists can choose your own colors. For added difficulty, try painting the map with only 5 or 6 separate colors so that no 2 countries of the same color are next to each other. You can also mark the map before your gang of artists arrive so that things go real smoothly.

FROM THE MAP-MAKERS KITCHEN

Ocean blue = 1/2 quart white + 3 - 5 teaspoons blue
Green = 4 spoonfuls yellow + 2 - 3 blue
Yellow green = 7 spoonfuls + 1 spoonful blue
Lavendar = 5 white + 2 purple
Purple = 4 red + 2 - 3 blue
Rose = 5 white + 2 - 3 red
Orange = 5 yellow + 3 red

Always mix dark paint into light. That is:
Put the light color in your cup first and add the darker color bit by bit, drop by drop

Always shake your paint. Otherwise it will be watery and you'll end up painting lots of the world twice

DIRECTING TRAFFIC

If there are lots of people painting (like 4 or 5), people (especially kids) will look to you for some direction. So... stay on top of the world! Always be ready to hand out another color of paint or answer a "What's this boundary?"
WHO SAYS WE CAN'T CHANGE THE WORLD?

Nobody. In fact, because we are human and this project allows you to exhibit a bit of your creative flair, you can be sure that you will end up changing the world somewhere. Literally! Some are small little border changes that happen when you miss painting that little corner of that country over there, and some world changes are much bigger, like leaving off an island. But try and remember to check your work and when you do change the world, don't forget to change it back!

OR HAVE FUN WITH GEOGRAPHY?

HELLO - IS THIS ANYTIME ANYPLACE ANYWHERE TRAVEL?
OK, I'd like to book 19 first class tickets...
UH HUH... ROUND TRIP...
YEAH ... 19 ... TO SPITZBERGEN...
SURE... SPITZBERGEN... MUST BE A BAD CONNECTION... THAT'S SPITZ - BERGEN. DO WHAT? OH, OK, S AS IN SAM, P AS IN...

A CARTOGRAPHER'S CRANK PHONE CALL

OR CREATE NEW PORTS?

WHERE ARE YOU DOLLING HER JACK?

OH, I THINK I'LL TRY THAT NEW ZIMBABWE PORT BETWEEN MOZAMBIQUE AND SOUTH AFRICA.
THE WORLD MAP KEY

[Map of the world with grid and numbers]
ABOUT THE WORLD MAP KEY AND WORLD MAP

The world map key on the preceding page is just to help you understand how the world map on the following 28 pages fits together (and incidentally, the world map key was drawn on a standard sheet of graph paper free-hand using the same method you'll use to make it bigger). Because the original 36 inch by 50 inch world map was traced and then put on 28 separate pages, there are a few trouble spots. These trouble spots are found where one page ends and another begins. For example, look on the world map key, and see how Africa falls on pages 10, 11, and 18. It's not a problem except where countries fall on 2 pages. And there's a tiny part of Chile that falls on 3 pages. So do be careful. Speaking of trouble spots, there are entire pages that can be more difficult to draw than others.

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OCEAN
PEACE CORPS

ANTARCTICA

OCEAN
APPENDIX I: Map-making Workshop

Buying Food

When purchasing food, the bottom line is not to blindly follow the estimates below but to use them as a guide and use your own judgement. Or better still, use the judgement of a neighbor or woman at your site who knows more than you do.

Breakfast

Consider having bread and juice/coffee as a mid-morning snack

3 fundas of bread will be enough for about 20 people

Lunch (For About 20 People)

10 lbs of rice
3-4 lbs. of beans
2 big live chickens

Budget

Please spend no more than ten pesos per person and limit the workshop lunch to no more than 20 people (including PCVs and counterparts). Of course, if you are able to have a well-balanced meal for five to seven pesos per person, that would be wonderful.

Use the meal as an educational opportunity. If you are working on a rabbit project in the area, have rabbit with the rice and beans. If you are working with gardens, have a salad with new vegetables, like radishes. Or if you're teaching nutrition, put some hard-boiled eggs in the salad and talk about the protein benefits.

The Day Before the Workshop

It's a good idea to take all the map-making materials over to the school or building where you will be working the next day. If the wall where you will be putting the map is a dark color (institutional green, dark yellow) you can white wash the wall (and area 6 ft. tall x 12 ft. long). Add a little water to about 1/3 quart of white acrylic paint and paint the area where the map will be. This makes it easier to draw as pencil lines show up much better on white.

To facilitate the next day's work, it's a good idea to draw part of the grid and map ahead of time. Center the map and draw the Left-hand, Top and Bottom Lines. Stick your masking tape rulers to the wall and draw the grid from the Top Line to 15 blocks down and from the Left-hand Line to 34 blocks to the right. Then make darker lines to delineate the pages one to four.
Number the grid and draw pages one, two, three, and four (North and Central America, Europe and part of Africa).

What To Draw The Day Before The Workshop

The Night Before The Workshop

Fill out the diplomas (except for the name)
Cut 20 rectangles of paper for name tags
Make a poster of the practice rabbit drawing and blank grid

Rabbit Poster To Teach The Method of Enlarging Using Quadrants
The Day of The Workshop

As people arrive, a PCV should print their full names on a sheet of paper (use this sheet when filling out the diplomas).

Begin the workshop with introductions and a short discussion about the importance of maps geography and making needed resources. Explain what has been done already (painting the wall white, drawing the grid and drawing part of the world).

Explain the method of enlarging using quadrants. Most teachers who have teaching certifications have heard of the method before and practiced it.

Have two Peace Corps Volunteers stick the masking tape rulers to the wall while you explain how to draw the grid. Hand out the rulers and have participants finish the grid. Make darker lines to delineate the different pages of the 18-page map and finish numbering the grid.

Hand out pencils and the practice enlarging sheets with the rabbit drawing on one side and the map of the Dominican Republic on the other. Tape your large poster with the rabbit drawing and blank grid to the wall. Beginning at the rabbit's nose, show participants how to enlarge by placing your finger on the rabbit's nose and your magic marker in the same block on the larger grid to the right. PCVs can work individually with their counterparts at this time.

Be sure to tell people that the most important thing to remember when enlarging with quadrants is where the line of the drawing crosses to block. It might be helpful to some to mark dots where lines cross blocks and then connect the dots to form the rabbit. If the participants would like more practice, they can enlarge the map of the Dominican Republic.

Hand out the pages of the 18-page map. Reiterate the importance of starting off drawing in the right block (or all your work is for naught). It's a good idea for people to work in pairs (one drawing and one checking the work, then they can switch). Have the pairs tape the page they're working on directly to the wall. Remember that some pages (such as Antarctica, the Soviet Union) are easier than others (such as the South Pacific). PCVs should let their counterparts do the majority of the drawing and should assist when requested.

What about those tiny islands in the South Pacific? Good question. Looking at the laminated map, you can opt to draw in the islands that actually have a speck of space in the middle. Then, the group can paint light blue around them and using these islands as references, paint the smaller specks around them.
Around lunch time, the group will finish drawing the world. Now is a good time for a 15-minute recess. Have a PCV go check on the food for lunch, and have a few other PCVs put paint dots of the appropriate color (using the colored laminated map pages as guides) in the appropriate country. To avoid confusion, it's best to mark all the countries with paint dots. Now, you can hand out brushes and get ready to answer the following questions:

"What color can I paint with now?"
"Is this line the boundary or that one?"
"Is that a lake or part of the country?"
"Are these islands supposed to be green or yellow?"
"Where do I put this brush?"
"I want to paint, where do I get a brush?"

After lunch, the rest of the afternoon is generally spent painting the rest of the world.

Just before people are ready to leave (between 4:30 p.m. and 6:00 p.m.), have a small ceremony to congratulate everyone for work well-done, admire the map, and hand out diplomas. Explain that the map-making kit will be kept at a central location (a Volunteer's house) and that the counterparts should organize with their Peace Corps Volunteer to decide when they would like to make a map. The PCV can then pick up the map-making materials at the central location. Explain that each map will cost ten pesos and that communities can hold raffles to raise the money, have other sorts of fundraisers or use money from the sale of garden vegetables, trees or whatever.

Now it's time to clean the brushes and put caps on paint. Get together and fix a nice dinner and celebrate a good day's work.

The Day After The Workshop

Today is the day a few PCVs can get together to do some border touch-up work. Using the laminated map, check all the country borders and make sure there are no glaring errors. If it's not quite right, add border squiggles so that it looks like the laminated map borders.

Label the map. It's best if only one person does this so that all the writing will be similar. Don't forget such sovereign specks as Andorra, Liechtenstein, San Marino or Monaco.

Varnish the map to protect it and be sure to clean the brush well afterward.

Celebrate. You did the whole world in a single weekend!
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1st Column Sub-Total + 2nd Column Sub-Total = Total Meal Cost

Less PCV Meal Contribution = Final Workshop Cost

53 58
WORKSHOP EVALUATION

Site/Town:
Date(s) of Workshop:

School/Building:
Instructor(s):

Attendance
1. PCV:
   Site:  Prgm:  COS Mo/Yr:
   Counterpart(s)  Profession/Grade (if student)

2. PCV:
   Site:  Prgm:  COS Mo/Yr:
   Counterpart(s)  Profession/Grade (if student)

3. PCV:
   Site:  Prgm:  COS Mo/Yr:
   Counterpart(s)  Profession/Grade (if student)

4. PCV:
   Site:  Prgm:  COS Mo/Yr:
   Counterpart(s)  Profession/Grade (if student)

5. PCV:
   Site:  Prgm:  COS Mo/Yr:
   Counterparts(s)  Profession/Grade (if student)

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<th>PCV</th>
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<th>Prgm</th>
<th>COS Mo/Yr</th>
<th>Counterpart(s)</th>
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Other:

Attendance Total: (PCVs: Counterparts: Other:)

Adults:
Youth:

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**Evaluation**

For the PCVs

What was your overall impression of the workshop?

How could the workshop be improved?

---

**Para Los Profesores y Estudiantes**

¿Qué aprendieron hoy en este taller?

¿Sería divertido y educativo hacer un proyecto así en su escuela?
APPENDIX II: Project Evaluation

Name: Program:
Site: COS (Mo/Yr):

Background
Did you attend a World Map-Making Workshop?
If yes, when: and where: 
Who was/were your workshop counterpart(s)?
Name Profession/Grade (if student)

Was the workshop helpful for you and your counterpart(s)?
(Did everyone have a good time? Learn a lot? Any negative repercussions?)

Site Map
School/Group making map: Approx # Beneficiaries: 
Location of map
Town: Building: Indoors/Outdoors: 
Financial Contribution
Amount of school/group's financial contribution: 
Where did the money come from? 
(dues, general fund, special fundraiser, etc.)
Who did you work with to make the map?

Name

Profession/Grade (if student)

Comments/Observations/Interesting Stories:
( Did you have fun? Run into unforeseen problems? Happy with the map?)

Would you recommend this activity to other Peace Corps Volunteers?
Explain:
The Map-Making Manual

Instructions
Which sections were unclear or confusing?

Suggestions for changes

Illustrations
Which illustrations were most helpful?

Which illustrations were unclear or confusing?

Which illustrations were unnecessary?

What additional steps need illustrations?