

Parshat Terumah – This Old Tabernacle

Thank you for this opportunity. I have been before this congregation many times to lead you in prayer and song, but I'm rarely asked to speak. You're about to find out why.

Norm: Welcome to the first episode of This Old Tabernacle. I'm your host, Norm Abram. Over the next two weeks, the Lord, Moses and I will be showing you some innovative and decorative storage ideas that were used in building the Holy Tabernacle. Today we're going to be building an ark, perfect for holding up to ten commandments, decorated with a beautiful kapporet. In our next show you'll see how to build a beautiful, portable table perfect for displaying your show-bread. And Aaron, of the Aaronson roofing company LLC will be stopping by to show us how to put a roof on the beautiful tabernacle that we'll be building today.

This Old Tabernacle is made possible by the Robert Acacia-Woods Johnson foundation, funding sacred spaces in the desert for over 3,000 years.

Norm: Our first guest on the show today will be Moses. Moses, I hear you have good news for us:

Moses: Well, yes, Norm, I do. Our winter fund-raiser was quite successful. The Lord told me to tell our viewers that we would need gold, silver and copper; blue, purple and crimson yarns, fine linen, and goat hair. Our viewers were quite generous, and we met our goals. We thank Tiffany's for donating all the lapis lazuli and precious stones that we'll need for the upcoming breastplate project. Our affiliates in Los Angeles and Miami donated all the ram skins and dolphin skins we need. Requests for oil and spices for lighting and anointing were met with a tremendous outpouring from donors like you.

Norm: Well, thank you Moses. That's great news!

Now, let's get started on our project. To make the ark, you'll need a table saw, a three-cubit ruler, a Sears Craftsman Samech-Resh-800 router with a 5/8" tongue and groove bit, a lathe, and the Black & Decker Bet-Daled-420 portable smelter with four ring molds. Now...

Set the table saw to a depth of 2". Cut three acacia wood panels to 2 ½ by 1 ½ cubits, and two more to 1 ½ cubits square. Use the router and make tongue and groove cuts as shown. Glue each joint, assemble the pieces so that they fit perfectly, and use your three-cubit bar clamps to hold things together until the glue dries. While the glue is drying you can overlay the inside of the ark with gold, and in about an hour you can take the clamps off and do the same to the outside.

Next, fire up the portable smelter and place some gold in it. When the gold is liquefied, pour it into the four ring molds. Drop the molds into cold water for an hour so that they will cool.

While they're cooling, use the lathe to make two long poles (about 3 ½ cubits each) that will fit through the rings.

Finally, attach the rings to the sides of the ark, put the poles through, and your ark is complete.

And so parshat Terumah begins.

Important Questions

This parsha in particular raised a number of important questions for me. First, and most important, why didn't I look at it before I agreed to speak about it? It seems to be just a list of building instructions, "how-tos without why-tos." And for those of us who don't work for Ikea, what is there to learn from building instructions?

Some anecdotes.

The Grill

Many years ago, Carol and I bought a gas grill for ourselves, and together with a few other couples bought and delivered one to our friends as a wedding gift.

Carol put our friends' grill together. She opened the box, looked for parts that seemed like they went together and used whatever screws seemed to fit. Her guide was the picture on the box. I couldn't bear to watch. There was a point where she realized that the only way to get a crucial piece in was to take apart about half the grill, but to her, that was a risk you take. She put the grill together, there were a few pieces leftover, and it worked.

I got to put ours together. I carefully removed the hundreds of screws, washers, wires, casters, doors, knobs, nuts, bolts, batteries and brackets. I took out the instructions and matched each one to the drawings. I made sure I had all the required tools. I followed the instructions step by step. Carol couldn't bear to watch. She wanted to push me aside and just put the darn thing together, but I resisted. All I had was the "how-tos," but I figured that there were also "why-tos." I didn't really care what they were. I put the grill together, there were a few pieces leftover, and it worked.

My Classroom

Now, come into my classroom for a bit.

Instructions on tests

I gave a test last week in my eighth grade math class. At the top of the test paper, I wrote: “Instructions: Please show your work on all problems. You may use a calculator.” Five students asked if they could use a calculator. Four other students came up to me during the test, pointed to a problem, and asked if they had to show their work.

Remembering what to bring

One day in class I was lamenting the fact that every day students forget to bring required materials, like their pencil, a calculator, a notebook. One student said, “Why don’t you put a list of things that we need in the front of the room?” I replied as I pointed, “you mean, like that one that has been there since September?”

Teaching math

I teach math. Many people see mathematics as instructions: facts to be memorized, procedures to be learned. Every problem has a correct answer, and there’s a correct way to do each problem. Students should memorize addition and multiplication tables. They should learn how to add, subtract, multiply, do long division, and solve equations. They should make graphs and find slope. They should memorize formulas for perimeter, area and volume. They should know how to prove things that the book already says are true.

Textbooks have real-world word problems that students should know how to solve.

I'm actually glad that I know how to do these real-world problems because I recently asked one of my former students how old he was. He said that three years ago he was $\frac{2}{3}$ as old as he will be in nine years. And I said, wow, and in fifteen years I'll be three times as old as I was thirty-five years ago. And he said, really? I thought you were much older than that.

And yesterday the finance person and I were going over one of my expense forms. She said, I notice that you spent \$25.50 on ten packages of loose-leaf paper and two binders. If the paper cost \$2.00 per package, how much was each binder? I said, \$2.75. She asked how I got my answer. I showed her the receipt.

How we teach math

If you teach math you can count on being asked: "when will we ever need this?"

When I get that question I answer, Here are some stupid answers:

- 1) You'll need it next year in algebra II
- 2) You'll need it to pass SATs
- 3) Colleges require it
- 4) You might need it one day in your job
- 5) To pass a placement test

And then, some only slightly better reasons:

- 1) Because it teaches you how to think (arguably)
- 2) So when other people use this math to solve a problem, you'll be able to understand what they did
- 3) It's an important life skill

The problem isn't really the answers, though. The problem is the question "when will I ever need this?"

Ed Burger

Ed Burger, a math professor and author, maintains that when a student asks you that question you've already lost them. It's just a way of saying, "I'm bored, this is stupid."

He says that to really engage students, offer them "challenging questions for which the solution is by no means apparent." When you do this right, students will do problems and learn from them without ever asking when they'll ever need this.

In a topology class, he stands on a table and ties the ends of a six-foot long rope tightly to his ankles. He then asks the class, "Is it possible for me to turn my pants inside out and put them back on without cutting or removing the rope?" I don't have a rope, so I won't be able to show you this, but I assure you that trying to figure this out is a lot more satisfying than being told the answer.

Dan Meyer

Dan Meyer, also a math educator, teaches teachers how to turn routine math problems into “challenging questions for which the solution is by no means apparent.” He has a collection of problems like the following one typical of math books, but presented in a different way. Here’s the original problem:

Consider a pyramid made from stacks of 13 pennies. The bottom layer of the pyramid has a 40 x 40 square of stacks, the next layer 39 x 39, and so on to the top layer with one stack. If a penny weighs 2.5 grams, how much does the pyramid weigh?

Pretty dull. Pretty boring. Nothing that would engage an eighth grader. Dan Meyer and I agree.

Here’s how Dan does it: First you show the class a time-lapse video of the pyramid actually being built. Then:

- Ask students to estimate how many pennies in the pyramid.
- Ask students what information they need (other than the answer) to figure it out.
- Tell them to go to the web and find what they need and solve the problem.

I did it this way. Students were excited. They worked on it. They talked to other groups. And no one asked, “when will we ever need this?” It was great.

In my classroom I have seen time and time again that the more instructions I give, the more detailed the instructions, the less engaged my students are.

So why would God do this? Why give us a list of instructions when there is such a potential for people to disengage? Why not give us a challenge for which the solution is by no means apparent? What is there to learn about instructions? Let’s return to my classroom one more time. We’ll see that instructions aren’t always bad.

Taking tests

In my classroom, students ask about instructions most when they take tests. They are nervous, and that can affect their ability to think clearly. They want to make sure that they do everything right. Despite what they have been taught they think that there is only one acceptable way to do a problem, and only one acceptable way to express an answer. They don't want to write too little, they don't want to write too much, they don't want to write the right answer the wrong way or in the wrong place.

For students who struggle with math, giving them clear instructions helps them understand what they must do to get full credit. When they understand the "how-tos," they relax. They become more confident. And as their confidence with the how-tos grows, they can more easily appreciate, understand and internalize the "why-tos."

Conclusion

Maybe what we learn from parshat Terumah is that at this time in the history of the Jewish People, we were struggling. We were wandering in a barren wilderness, fleeing from slavery, homeless. We stood at Mount Sinai two weeks ago and, amidst thunder and lightning, smoke and fire, fear and trembling, ground rumbling beneath our feet, we received the Ten Commandments from the same powerful God that brought us out of Egypt. Maybe we were nervous and not yet thinking clearly.

And maybe at this time what we needed was "how-tos." We needed to know exactly what to do, what the answer was supposed to look like, and how to tell when we were finished. We didn't want to do too little, and we didn't have time to do too much.

For many of us our Jewish education started with a list of instructions, "how-tos without why-tos". And it is my hope that as we follow the how-tos of Jewish life, we also take time to appreciate, understand and internalize the "why-tos" in everything we do.

Shabbat Shalom