

Six Ways to Be a Better Boat Builder

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I was born and raised in the San Francisco Bay Area. From an early age I was surrounded by innovation and encouraged to be creative by my shop-teacher father and my interior-designer mother.

Both as a professor of engineering and in my personal life, I am happiest when I am creating. I enjoy woodworking, welding, leatherwork, 3D printing, and home renovation. I regularly practice technical sketching, 3D CAD modeling, graphic design, and writing. At the end of a long day, it is not uncommon for me to play the guitar, just to wind down.

Although I am rarely—if ever—content trying to copy someone else’s creative work (such as making a replica of a movie prop), I am *very* interested in learning about and emulating the creative processes that others have successfully used. I like studying about influential designers and iconic products, ultimately trying to discover their history and understand the reasons for

their success. These stories and their underlying principles often show up in my teaching at BYU. For example, I have taught about or written about influential people ranging from product designer Dieter Rams¹ to photographer Ansel Adams² to video game designer Shigeru Miyamoto³ as well as about products including the LEGO brick,⁴ WD-40,⁵ and the Fender Precision Bass.⁶

Successful people and products from the past are inspiring to me, and what I learn from their stories often permeates what I do—including this talk, as you will see shortly.

I feel blessed to teach and do research on the engineering design process, product development, and interdisciplinary design work. I am particularly grateful to have team-taught design and innovation with inspiring faculty from six colleges and various departments at BYU. I have visited roughly fifty countries—mostly to collaborate on creative endeavors. These experiences have taught me how valuable and different each perspective

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is and that it takes all kinds of people, interests, backgrounds, and ideas to make the world as beautiful as it is.

So it is an understatement to say that being surrounded by innovation early in my life has highly influenced who I am as an adult. Thank you, Mom and Dad, for giving me the gift of creativity.

My parents joined the Church when I was a toddler. So while I was surrounded by innovation from an early age, I was simultaneously surrounded by the love that comes from the gospel of Jesus Christ. As much as I value my early exposure to creativity, I consider my parents' conversion to the gospel to be the greatest of all the gifts they gave me.

They shared their conversion with me by teaching me what they had discovered while they studied the gospel. I remember one time in particular when my mom called me in to where she was studying and shared with me the story of the Jaredites and their three-hundred-forty-four-day journey across the open sea. Crossing the sea was difficult for them, she said. They were hit by overwhelming storms and mountainous waves. But their trust in the Lord carried them through, and when they finally made it to shore, "they bowed themselves down upon the face of the land, and did humble themselves before the Lord, and did shed tears of joy before the Lord, because of the multitude of his tender mercies over them."⁷

After reading that scripture and others with me, my mom said something that turned this otherwise historical account into a story that has helped shape who I am. She said the Jaredite journey is an analogy for our lives and the ups and downs we will face as we experience this life. The message is about how to make it through the storms, about where to turn for strength, and about recognizing God's blessings even when things are tough. Over the years, that moment with my mom has helped me put my struggles into context and has helped me "trust in the Lord"⁸—even when things seem to turn upside down.

As the decades have passed and I have thought more deeply about the Jaredite story as a metaphor, it has been impossible for me to ignore two critical parts of this story that stem from my interest in design and innovation. They are (1) the people and (2) the products at the center of that

journey—namely, the brother of Jared *and* his curious boats. In studying that story even more deeply, I have come to realize that a successful Jaredite journey was not as inevitable as it may have seemed on the surface. Instead, the impact of the Savior's tender mercies over the Jaredites was only fully enabled by the character of the boat builders and the nature of the boats they chose to construct.

In our life's journey, each of us will face metaphorical storms, even terrible tempests, ferocious winds, and mountainous waves. We will need to be good boat builders, for we need strong boats that can hold up to the storms and get us where we need to go.

In this talk, I will share six ways to be better boat builders. These six ways were derived from examples in the Book of Mormon as I studied the boat building experiences of both the brother of Jared and of Nephi. I am grateful to have studied these six things, because I need them in my life right now as I continue to construct and repair my boat and as I occasionally find myself in the middle of unanticipated storms. While these six things are useful for me, I believe that they are even more pertinent to you young university students who are in the throes of constructing the boat that will take you through your adulthood.

To that end, I pray for the gift of the Holy Ghost, that it may rest more fully upon you during this devotional so you might hear the message God has for you as you construct your boats, even if, and especially if, that message comes to your heart from the Spirit, instead of to your ears from the words I say.

Okay, even though we just started, it is time for a small review. In this metaphor, our life is a journey over the sea. There is a starting point and an ending point. Along the way there are storms—some we can avoid and others just happen, regardless of what we do. The boat we take this journey in matters, since it will largely determine how we experience the storms. We are the boat builders. We choose and construct the vessel we make the journey in.

And now the golden question: What is the boat?

The boat represents the vehicle in which we will experience life's journey. To me, this is most

easily thought of as our individual character, attitude, resiliency, priorities, talents, and habits—all of which undergo development while we live our lives.

This reminds me of an interesting concept in the field of engineering design and creativity. The concept was popularized by Stanford mechanical engineering professor Bernard Roth in his course called *The Designer in Society*, which is about designing your life.⁹ The basic notion of designing your life is to think deliberately about who you want to become and what it will take to get there and to then take the steps necessary to lead to that life. The core concept of the course is that we have more control over who we become than we think we do.

If this concept is true—and, for the most part, I believe that it is—I want as much guidance as I can get in designing my life and building my metaphorical boat! And where better to turn for guidance than to the enduring accounts in the scriptures? They are time tested, nontrendy, and powerful—and they are “the word of God.”¹⁰ And—as if we were destined to ask the question “What kind of boat builder should I be?”—there are multiple detailed descriptions of how the scriptural boat builders did their work and prepared for a successful journey.

Through study and likening,¹¹ we can extract from the scriptures six ways to be better boat builders, which I will now share.

1. Let the Lord Lead You

Nephi is very clear in saying that he was instructed of the Lord, both when he was first commanded to build the boat and throughout the process.¹² This means that Nephi accepted guidance and instruction. He let the Lord lead him. We don’t know if it was easy or hard for Nephi to be instructed in this way. Many of us imagine it would have been easy for Nephi, but had I been in Nephi’s shoes, I would have been nervous about one particular aspect of the Lord’s instructions: that the design of the boat and the construction techniques were “not after the manner of men.”¹³ I would have wanted to stick to proven technologies—the ones I had seen others use. Nephi’s statements about the uniqueness of what he was

asked to do suggest that he had a knowledge of how boats were designed and built in his time and that what he was instructed to do was different.

How willing are we to follow the Lord’s instructions when constructing our boats? And how much more difficult does it become when we know that what He has asked is “not after the manner of men”? We know that some of Nephi’s brothers tried hard to discourage him from doing the work, adding to the pressure to give up. Mocking Nephi, they said, “We knew that ye could not construct a ship, for we knew that ye were lacking in judgment; wherefore, thou canst not accomplish so great a work.”¹⁴

As a young member of the Church, you have also been called to a great work.¹⁵ Don’t let anyone discourage or discredit your desire to answer that call and to do good in the world.

Answering it well, however, is hard work that often requires us to collaborate and to rely on each other’s strength. We don’t know if Nephi’s older brothers were lazy or opposed to the ship project in principle, but we do know that they “were desirous that they might not labor.”¹⁶ And this made Nephi’s job harder. He pleaded with his brothers “that they should murmur no more . . . ; neither should they withhold their labor from [him].”¹⁷ As strained as their relationship appears to have been, Nephi needed his brothers to help move the work along. Eventually the brothers did help, and the job was accomplished according to the instructions of the Lord. In the end, it was done so well that the “workmanship” was described as being “exceedingly fine.”¹⁸

2. Use Tools to Amplify Your Strengths

One of the beautiful parts of Nephi’s construction story is that when the Lord asked Nephi to build the boat, he was *proactive* and immediately asked, “Whither shall I go that I may find ore to molten, that I may make tools to construct the ship after the manner which thou hast shown unto me?”¹⁹ Nephi’s proactive nature (which is a reflection of his character) and his faith in the Lord’s ability to show him where to find ore (which is a reflection of his spirituality) are the typical highlights of this story. But there is another part of this interaction that I find equally inspiring. It

is that Nephi knew that to accomplish the work, he would need to couple together his faith and his physical strength. It was important that he knew that his own physical strength could be amplified with tools, which most certainly came in the form of simple machines—namely, wedges, levers, wheels, and so on. In this way, Nephi brought more than his best self to the task.

In our worldwide Church, we are so blessed to have various tools at our disposal: the scriptures, the living prophets, general conference, numerous Church publications, temple work, missionary service, the Church Educational System, and many more. Every one of those tools is designed to help us build our boats and successfully take our journey.

Just like Nephi, we need to be proactive in the construction of our boats, we need to be faithful in following the Lord, and we need to use the tools we have been given to amplify our natural abilities and help us contribute in deeper, more meaningful ways than we could without them.

3. Seek Appropriate Balance

Building our metaphorical boats is exhausting! I know this firsthand; I commonly commit to too much and find myself running faster than I have strength (this is not good, by the way).²⁰ Sometimes it is so tiring that I find myself pausing from my boat's construction—taking a break from my personal development.

Made manifest by your commitment to higher education, the intellectual parts of your boat are as strong as ever. You are building, building, building. Way to go!

But are you keeping enough in reserve to keep going on the other parts of your boat? For example, the spiritual parts? It is not necessary to be equally balanced in all things in life. But in pursuit of your academic goals, it is important to not neglect your physical health, your mental and emotional health, nor your spiritual health. To keep the boat upright, you don't need perfect balance, but neglect one entire category, and your chances of capsizing are greater.

I love the scriptures that describe what happened to the brother of Jared when things became

imbalanced in his life. While in the middle of tumultuous Old Testament events, the brother of Jared and his people found favor with the Lord and were brought out of harm's way—being led continually by the hand of the Lord to the edge of the sea, where they set up their tents and stayed for four years.²¹ Sometime in the middle of those four years, the brother of Jared stopped praying, and in this way he had lost his balance. The part of this story that is inspiring to me is how quickly the imbalance could be corrected.

And it came to pass at the end of four years that the Lord came again unto the brother of Jared. . . . And for the space of three hours did the Lord talk with the brother of Jared, and chastened him because he remembered not to call upon the name of the Lord.

And the brother of Jared repented. . . .

And the Lord said: Go to work and build. . . . And . . . the brother of Jared did go to work, and also his brethren, and built barges . . . according to the instructions of the Lord.²²

Change is always possible. And the change that comes from repentance is complete—so complete that God “remember[s our sins] no more.”²³ This was true for the brother of Jared, and it is true for us. Later in the brother of Jared's life—well after the three hours of chastisement—the Lord praised the brother of Jared—*as if he had always been faithful in praying*—when He said, “Never has man come before me with such exceeding faith as thou hast.”²⁴

4. Ask Good Questions

There is an interesting sentiment expressed throughout both boat builders' accounts. It is “that the Lord did go before them.”²⁵ What this means is that they followed the instructions of the Lord. I believe this made all the difference in their successful construction and journey.

Does this mean they followed blindly? No, it does not. The Jaredite story conveys this well. The Lord had instructed the brother of Jared to make barges, and after he had finished doing what the Lord had asked, the brother of Jared was concerned about the design. And so he shared his concerns and doubts with the Lord.

In our lives, too, it is okay to have questions and concerns. We know that Joseph Smith had questions,²⁶ and his were about religion! He didn't shy away from those questions, and he didn't give up on his spirituality because of his questions. *He asked his questions.* President Russell M. Nelson recently taught us about questioning when he said, "If you have questions—and I hope you do—seek answers with the fervent desire to believe. Learn all you can about the gospel and be sure to turn to truth-filled sources for guidance."²⁷ Joseph turned to the scriptures, to trusted friends, and to family members, but, most important, he turned to God in humble prayer.

After having built eight boats, as instructed by the Lord, the brother of Jared was worried. He didn't believe the barges would work well as designed.²⁸ When he shared his concerns with the Lord, he received three very different kinds of responses that I believe are all possibilities for how God might help us build and refine our boats.

As you know, the Jaredite boats were very unique. They were described as being "tight like unto a dish."²⁹ They were tight on the bottom, the sides, and the top. Even the door to get in was tight like unto a dish when it was shut. They were so exceedingly tight that in those boats there was no air to breathe nor light to see. These were two of the brother of Jared's concerns.

The brother of Jared said to the Lord that they would die if they could not breathe.³⁰ In response, the Lord told him, in essence, to put a hole in the top of the boat and put one of the airtight hatches on it. When they needed air, they could open it. If water came in, they should close it.³¹ So far, this solution sounds reasonable, right? But the Lord also told the brother of Jared to put a hole with the same airtight hatch in the bottom of the boat.³²

Sometimes God gives us an answer to our question and that answer makes sense to us. And sometimes it doesn't. Often though, in hindsight, His answers do make sense. I imagine that when the Jaredite boats were tossed and turned during their rough journey and when what was once the top of the boat was then the bottom of the boat, the Jaredites could see the wisdom of the Lord's instructions.

5. Search for Solutions in the Scriptures

The brother of Jared also shared concerns with the Lord about the lack of light in the boats. This time, instead of providing a solution, the Lord asked the brother of Jared for a solution. In response, the brother of Jared created sixteen clear stones and asked the Lord to touch them and make them shine in the dark.³³ I don't know what kind of solution the Lord was expecting the brother of Jared to have, but I believe it is possible that the Lord wanted the brother of Jared to do exactly what we are doing—likening the scriptures unto us.³⁴

According to Moroni, who abridged the book of Ether, the Jaredites had a scriptural record "which speaks concerning the creation of the world, and also of Adam, and an account from that time even to the great tower."³⁵

This record would have included some account of Noah, his boat, and the Flood. We don't know what details the brother of Jared had about Noah's boat-building experience, but in the account of Noah in our King James Version of the Bible, there is an interesting footnote for Genesis 6:16 that says, "Some rabbis believed [that Noah's window in his ark] was a precious stone that shone in the ark."³⁶

Perhaps the brother of Jared solved the darkness problem by searching the scriptures, finding what was pertinent to him, and putting it into practice.

6. Commend Yourself to the Lord

The brother of Jared had three concerns about the boat design; we have already talked about the lack of air and the lack of light. The third problem was more complex, deeper, and is also the least spoken of in the scriptures—but I believe it is the most profound.

While examining the boats he had constructed according to the Lord's instructions, and feeling uncomfortable about the lack of light and air, the brother of Jared also asked, "Lord, . . . whither shall we steer?"³⁷ I believe this verse can be interpreted in two different but equally frightening ways: "Lord, where are we going?" and "Lord, from where in this boat do we do the steering?"

To solve the lack of air problem, the Lord gave a solution that worked.³⁸ To solve the lack of light problem, the Lord asked the brother of Jared to find a solution, which he did well.³⁹ But this third problem was different. Though seemingly fundamental to a journey across the ocean, the boat's problem with steering would not be fixed. The Lord had a different plan that the brother of Jared had not yet understood.

The Lord's plan was for the Jaredites to commend themselves to the Lord—or to entrust themselves to the Lord's hands.⁴⁰ It would be the Lord who would steer, who would direct, and who would see that they completed their journey as intended.

No doubt it required significant faith to enter those boats—perhaps without a way to steer and certainly without a course plotted to a destination—but that is what they did.

They got aboard . . . their . . . barges, and set forth into the sea, commending themselves unto the Lord their God.

And it came to pass that the Lord God caused that there should be a furious wind blow upon the face of the waters, towards the promised land; and thus they were tossed upon the waves of the sea before the wind.

And it came to pass that they were many times buried in the depths of the sea, because of the mountain waves which broke upon them, and also the great and terrible tempests which were caused by the fierceness of the wind.

And it came to pass that when they were buried in the deep there was no water that could hurt them, their vessels being tight like unto a dish . . . ; therefore when they were encompassed about by many waters they did cry unto the Lord, and he did bring them forth again upon the top of the waters.

And it came to pass that the wind did never cease to blow towards the promised land while they were upon the waters; and thus they were driven forth before the wind.⁴¹

So we can see by this account that the Jaredites did commend themselves unto the Lord—thus unlocking all of the Savior's tender mercies that saved them. But in so doing—by entrusting themselves unto the Lord—they passed through some

extremely trying times, for the very wind—even that ferocious wind—that pushed them successfully to their destination also caused them to be tossed and turned and to have mountainous waves crash heavily upon them.

But through it all, their boats held up, both physically and metaphorically. Throughout their journey they trusted the Lord and “did sing praises unto the Lord, and . . . did thank and praise the Lord all the day long; and when the night came, they did not cease to praise the Lord.”⁴²

And when their three-hundred-forty-four-day journey ended, they knelt in prayer and “shed tears of joy before the Lord, because of the multitude of his tender mercies over them.”

Now, as we come to the end of this story, let's take a moment to review. The boat we take on life's journey matters, since it will largely determine how we experience the storms. We are the boat builders. We choose and construct the vessel we make the journey in.

To be a better boat builder:

- Let the Lord lead you in your construction.
- Amplify your natural abilities by using the tools available to you.
- Seek for a reasonably well-balanced construction; correct imbalances quickly.
- Have and ask good questions, seeking answers from truth-filled sources.
- Search the scriptures for answers and liken them unto you.
- Trust in the Lord and commend yourself to His perfect care.

Thank you, Mom, and thank you, Dad, for finding and sharing these stories with me. I believe them, I find strength in them, and they have shaped the way I want to live. Though I fall short—more often than I would like—“I know in whom I have trusted,”⁴³ and I know to whom I will turn for tender mercies. And though the ferocious winds, mountainous waves, and terrible tempests come—as they do for all of us in our lives—our boats can be made to handle it all just fine if we choose to let the Lord lead out on the design. His design is made for survival, and He has said, “For ye cannot cross this great deep save

I prepare you against the waves of the sea, and the winds which have gone forth, and the floods which shall come.”⁴⁴

It is my prayer that we may all have the foresight, faith, and courage to let the Savior be the author and finisher of *our* story, that we may let Him be the master architect and a cherished partner in the construction of our boats and that we may all enjoy the fruits of a successful journey together. In the name of Jesus Christ, amen.

Notes

1. Christopher A. Mattson, “Dieter Rams: Less but Better,” *BYU Design Review*, 27 May 2020, designreview.byu.edu/collections/dieter-rams-less-but-better.
2. Christopher A. Mattson, “Ansel Adams: The Obligation of All Creative People,” *BYU Design Review*, 4 December 2020, designreview.byu.edu/collections/ansel-adams-the-obligation-of-all-creative-people.
3. Christopher A. Mattson, “Shigeru Miyamoto: Nintendo’s Super Power,” *BYU Design Review*, 1 December 2021, designreview.byu.edu/collections/shigeru-miyamoto-nintendos-super-power.
4. Dallin Cordon and Christopher A. Mattson, “The LEGO Brick,” *BYU Design Review*, 18 December 2019, designreview.byu.edu/collections/the-lego-brick.
5. Christopher A. Mattson, “Seven Timeless Principles We Can Learn from WD-40,” *BYU Design Review*, 9 February 2021, designreview.byu.edu/collections/7-timeless-principles-we-can-learn-from-wd-40.
6. Christopher A. Mattson, “Good Design: Fender Precision Bass Guitar,” *BYU Design Review*, 29 October 2021, designreview.byu.edu/collections/good-design-fender-precision-bass-guitar.
7. Ether 6:12.
8. Proverbs 3:5.
9. See Bernard Roth, *The Achievement Habit: Stop Wishing, Start Doing, and Take Command of Your Life* (New York: Harper Business, 2015), 1–4.
10. Articles of Faith 1:8.
11. See 1 Nephi 19:23.
12. See 1 Nephi 18:1.
13. 1 Nephi 18:2.
14. 1 Nephi 17:19.
15. See Russell M. Nelson, in Russell M. Nelson and Wendy W. Nelson, “Hope of Israel,” worldwide youth devotional, 3 June 2018, churchofjesuschrist.org/study/new-era/2018/08-se/hope-of-israel.
16. 1 Nephi 17:18.
17. 1 Nephi 17:49.
18. 1 Nephi 18:4.
19. 1 Nephi 17:9.
20. See Mosiah 4:27.
21. See Ether 2:5.
22. Ether 2:14–16.
23. Doctrine and Covenants 58:42.
24. Ether 3:9.
25. Ether 2:5; see also 1 Nephi 17:13; 18:1, 3.
26. See Joseph Smith—History 1:18.
27. Russell M. Nelson, “Choices for Eternity,” worldwide devotional for young adults, 15 May 2022, churchofjesuschrist.org/study/broadcasts/worldwide-devotional-for-young-adults/2022/05/12nelson.
28. See Ether 2:18–19.
29. Ether 2:17.
30. See Ether 2:19.
31. See Ether 2:20.
32. See Ether 2:20.
33. See Ether 3:1, 4.
34. See 1 Nephi 19:23.
35. Ether 1:3.
36. Genesis 6:16, note a; see also Ether 2:23–24.
37. Ether 2:19.
38. See Ether 2:20.
39. See Ether 2:25; 3:4.
40. See Ether 6:4.
41. Ether 6:4–8.
42. Ether 6:9.
43. 2 Nephi 4:19.
44. Ether 2:25.