

Convocation Address, Bucknell University Class of 2021
August 20, 2017
John C. Bravman, President

Good evening, and welcome. It is great to be with you again as you stand on the threshold of formally becoming the Bucknell University Class of 2021. I also want to welcome my colleagues in the faculty and staff. Thank you for being here. I am proud to be with you tonight to join together in welcoming and celebrating the newest members of our community.

Students, these individuals are here to support you, to challenge you, and help you grow in profound ways you cannot yet appreciate. Please, take advantage of their investment in you as you begin on this path to a fulfilling and meaningful life.

Tonight it would be the usual president's address if I talked to you about the liberal arts, the power of education, and the excitement and challenges awaiting you in the years ahead. The evening would also follow script if I reminded you to go to class, develop good study habits, get proper rest, have fun, and take care of yourself and of each other.

So I just did that. And I meant it.

But allow me to detour from the typical presidential address. Allow me to take you on a brief journey — to a darkroom, an artist's studio, and, to start, the inside cover of a book that is very special to me.

A simple, aged book called, *Wonders Through the Microscope*, first published 83 years ago. Here is my copy.

Now, why would I have an original copy of a book this old, let alone one about microscopes? It would perhaps make sense if this volume was in our library collection, but even then, why?

Let me point out that the Ellen Bertrand Library, the symbolic heart of knowledge on campus, is just a few hundred yards from here. Among its many great purposes is the business of book acquisition. Maybe the book as we know it going away — I certainly hope not — but Bucknell continues to acquire books, and many other things, on your behalf.

My acquisition and possession of this book over many years, though, has a different reason than the preservation of knowledge.

This book is worn and tattered. Its illustrations are fading. Its lessons about the microscope

were useful in the 1930s. But the technology of the microscope long ago took us far deeper into nature than even the authors of *Wonders Through the Microscope* might have dreamed possible.

So why have I kept this old and obsolete book? Because inside there is a handwritten note by a certain student. As you can see by the picture of the bookplate now on screen, he acquired this book in February 1937.

He was 17 years old at the time. Or almost the same age as most of you. And as you might have guessed, Maurice Bravman, the owner of this book, was my father.

He never went to college. But he loved reading... *Loved* reading.

And just opposite that dated bookplate, he wrote in his own hand a note that I have always cherished.

"This book belongs to a vertebrate metazoa named Maurice D. Bravman."

I've always loved that inscription. Not only because I admired my Dad's passion for reading and learning, not only because he is no longer with us and that the sight of his handwriting brings back cherished memories, and not only because it exhibits his dry sense of humor.

I have always loved that inscription, because materials science became my research specialty, and the instrument I've spent more time with than any other is a type of microscope, a transmission electron microscope. Trust me, it's a tool through which one can see *wonders*.

The interests and passions that become our acquisitions, our driving forces, are as mysterious as the human heart, as compelling as the power of memory. Finding them, though—finding the interests that keep you curious, exploring, learning—these are the acquisitions that truly matter.

Now let me take you to another place. A dark place. Literally, a darkroom.

When I was very young, I was learning to develop film in total darkness. Because photography was a hobby of my father's. By kindergarten, almost literally by learning at his knee, I was printing pictures in the darkroom he built at home.

The best camera that my dad ever had was a Rolleiflex. This is it right here.

It came into our family after World War II, when it seemed like all the major media were in black and white—the newspaper, except for the Sunday comics. The television. The movies.

And suddenly we had a camera that could take fantastic *color* pictures, as well black & whites.

Camera technology has long since passed by the capabilities of this Rolleiflex, although its optics are still quite remarkable.

But that's not why this camera matters to me.

It matters to me because to this day I love photography. As a child coming into consciousness of my life, I would watch my father develop his own pictures in the darkroom. He worked with two-and-a-quarter-inch square pieces of film, just 12 shots to a roll. The whole process required painstaking attention to get the chemicals right, the composition right, the development timed just perfectly.

Ever since, I have loved standing on the other side of the lens and trying to do all the things necessary to get a good photograph—the lighting, shutter speed, foreground, depth, framing, color, motion, juxtaposition, balance.

I acquired, that is, a love of something that keeps teaching me—and that keeps affecting my relationship with the world around me.

This is the mind growing through a passion. This is the magic of acquiring a curiosity, an interest, that challenges and awakens us in constantly unexpected ways. This is a dark room coming to light.

Which leads to the final place I want to take you.

In April 2011, I visited the artist's studio of a 1983 Bucknell alumnus named Makoto Fujimura, otherwise known as Mako. His work is world-renowned—spectacular abstracts that evoke the full range of what it means to be a human.

Like this piece of art, titled "Golden View."

Mako gave this painting of his to Bucknell a few years ago as a precious, precious gift.

Now let me tell you the real story, the real brilliance, behind this University acquisition.

One of Mako's specialties is painting with gold leaf. Literally: Gold. Leaf.

Maybe you don't find that as amazing as I do. But as a materials scientist I can tell you that it is fascinating to me. Gold, for instance, is amongst the most ductile and malleable metals. One ounce of gold – about the size of a few grains of rice - can be beaten out to hundreds of square feet, or

drawn into many, many miles of thin gold wire – far thinner than a human hair.

At the time of my visit to Mako's studio, it was a crowded but open space. Stacked and propped on easels all around us, but also on the floor, were his works in one state of creation or another.

And there, on his worktable, sat a small, inch-high pile of gold leaf sheets, maybe five inches per side.

Mako gets this gold leaf from a place in Japan that creates the thinnest gold leaf in the world...by hand. That day, I watched him step over to his worktable, reach gingerly toward the gold, and peel from the top of it a single piece of gold leaf.

He let it hang between his fingers. It was so diaphanous as if to defy the meaning of weight. It was shimmering, but it was also so thin that some light shown through. I have never before, nor since, seen a metal transmit light.

Some people acquire gold for wealth and status. Many of us have some in jewelry. But others – the rare, the few – acquire it for the sake of creativity and expression, for inspiring the soul, and for making in life a work of art.

We can look into the most powerful microscopes today and see the atomic world humming there at the root of all things.

We can enter a darkroom and let the captured world rise on film into a memory to hold onto.

And we can see and touch and lift gold, the root of so much technology, as well as the cause of so much greed, and find also the source of art that trembles in our soul.

A book. A camera. A painting.

Literature; technology; art – creativity deeply rooted in each.

We acquire experiences in our lives. We acquire things. We acquire memories. It is inevitable. It is how a social system works, how an economy and a culture work, and how the mind unfolds.

I have talked to you of these facts in an arts center named after a woman who turned her family's business into extraordinary philanthropy. Janet Weis and her family have supported art, science, medicine, healthcare, and the well-being of children. From a passion for business they acquired a love for contributing to their community in countless ways.

And they invested in this arts center so that others could acquire an experience with the arts of

all kinds. They invested in this arts center, that is, so that you could acquire experiences with the arts that you would never forget.

I have mentioned the Bertrand Library too. Like this arts center, the Ellen Clarke Bertrand Library is named for another of Bucknell's greatest philanthropists. Shortly after World War II, when this university was only beginning to have its great national aspirations, Ms. Bertrand stepped to the fore and made a down payment on the education of future Bucknellians. Like you.

She funded a library whose calling is the acquisition of the ideas and creativity of the world's greatest thinkers, as expressed in books and other artifacts.

But the library does not exist to acquire and keep. It exists to acquire and share. To share, that is, with you. So you can share in the world of knowledge and ideas that is now, on this campus, literally at your doorstep.

The same can be said of our outstanding faculty, who are represented by my colleagues sitting on each side of you in this auditorium tonight.

I am confident you will find that if you enter Bucknell with a desire to learn, to grow, to become your best self, you will find that our faculty help you acquire a sense of knowledge and of your potential that stands the test of time.

We are dedicated to your learning, but you must have the passion, the curiosity, the drive, to acquire it to your fullest ability.

I cite this mission on a beautiful campus. It is a campus that I hope you will truly one day—one day soon—call with deep feeling, "Home."

It is a campus that, in every direction, has benefitted from the commitments of teachers, scholars, alumni, parents, friends and donors across generations who have helped to build here for you the opportunity of a lifetime.

We gather on this campus the night before you formally begin your life as a Bucknellian. Shortly we will stand together on the quad at a Candlelight ceremony to mark the moment. You will never forget it.

It is a memory I hope you acquire in all its magnitude — for what it symbolizes of this place, and the light it asks of you. For here, you will acquire more than an education and, I trust, more than a diploma.

I believe in the days, months, and years to come, you will acquire a great part of the identity that will shape who you become. You will acquire

ideas and interests. You will acquire memories. You will acquire new ways of understanding history, art, literature, languages, technology, science, engineering, business, the economy, and the body and the spirit. You will acquire the friendships of a lifetime. And, I assure you, you will acquire not only new ways of seeing each other, but also new ways of seeing yourself.

You are a vertebrate metazoan.

And you are a human being.

More than that, you are a human being with the extraordinary gifts of your own potential at a place primed to help you achieve it. If you did not have that potential, you would not be a Bucknell student. But you are.

So acquire not by chance, but by choice.

Go to the library and explore what you do not know. Go to the library because learning something new will never stop serving you well in ways that you cannot anticipate. And come to the Weis Center and other arts venues and partake in cultural experiences that help you find a new part of yourself. Most of all, go be with your faculty, in class and out, and learn deeply from them. That is why they are here, and they are waiting for you.

Acquire through this place the lessons and knowledge that will enrich your thoughts, expand your perspectives, and better not just your lives, but the lives of those around you. That's called *community*.

That bears repeating — acquire the knowledge that will enrich your thoughts, expand your perspectives, and better both your lives and the lives of those around you. That's called *community* — including our national community.

As I wrote to all of you on Tuesday night, we have had to confront the raw reality of hate and violence yet again. The acts we've witnessed across the country are a stark and sobering reminder of the need for us — not just us as teachers and students — or as a community of Bucknellians — but for us as human beings — to always choose the side of justice. We must continue to stand against these heinous displays of intolerance and discrimination, which counters all that we stand for as an institution of higher learning. "White supremacy," "neo-Nazi" — let's just call it for what it is: a face of evil.

Not so long after my dad bought "Wonders through the Microscope," he enlisted in the Army to be in the war. For someone of my age, that always meant World War Two. When I think that,

more than 70 years later, we are still confronting the types of odious ideology and hate that my dad swore to combat, I am profoundly saddened that we have so much work left to do. And how can it be 54 years – almost to the day – that Martin Luther King, Jr. uttered those famous words – “I Have a Dream.”

As you acquire experiences, acquire those that you can stare down into, as if through a microscope, and learn something new every time. Acquire knowledge that changes and deepens the way that you look—as if through the lens of a camera – at the world you thought you had figured out. And enliven, inspire, challenge that golden, diaphanous part of yourself from which awakening continues to come in lasting reward.

Your acquisitions will be many. Make them the kinds that count.

And as you acquire a Bucknell education, I promise you this: Bucknell will acquire some part of you, too. It will become as intrinsic to your life as the friends you make here, the memories you forge, the learning you develop, the capacities you begin bringing truly alive.

Like a handwritten note to your future self, you can acquire here, if you commit to it, the shimmer of all that is precious in the light of truth, the light of knowledge, the light of wisdom, and the light of justice.

In doing so, may you find illumination for your soul.

Congratulations to all of you, and welcome to Bucknell.