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Dialogue

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DIALOGUE
A Journal of Commentary and the Arts

November 1991
CONTRIBUTORS

Elizabeth Boyd claims to have no hobbies or interests. She majors in art and English and states that she is a sophomore despite the bodbook's classification of her as a freshman.

Josh Cooley, a junior, majors in both philosophy and art—but he would rather not talk about it. Dan Emshoff believes “life is a question mark that gets bent into an exclamation point, and that you’re never really alive until you’re not afraid to die.”

Chad Engbers, a junior, is an English major. A trip to New York inspired him to write his “fighting sonnets, ‘Weepers & Sowers.”

Jeremy Lloyd, a whirling dervish from Pennsylvania, calls himself “a non-Reformed sophomore (though sympathetic to Calvinists everywhere).”

Karen Meinema, a sophomore, majors in art and believes that in order to endure life, one cannot take it all too seriously.

Amy Olsen recommends that all seniors read the chapter entitled “Spelling Tuesday” in the book The Tao of Pooh by Benjamin Hoff.

Rob Patete hails from Philadelphia and is a sophomore. His interest in art grew out of a “graffiti stint” in high school.

David Steensma just completed Professor Ed Douma’s Golf I class, and says he now knows he is “what real golfers call a ‘duffer.’” David, a senior majoring in physics, plans to attend medical school.

Stacey Washburn’s father shudders whenever she calls home and says, “It’s a good opportunity, and the plane fare is a great deal!” A senior English major, Stacey calls herself “a native of beautiful Grand Rapids who constantly finds excuses to travel far from it.”

Don Zeilenga is a fifth year biology major who had a four semester-long infatuation with the darkroom. He daily visits the Jerry Uelsman prints on display in North Hall.
Le Mot Injuste: of Buzzwords and Zingers

SHORT STORY

Cruise
AMY OLSON

I WANTED TO HELP
Stacey Washburn

ESSAY

I WANTED TO HELP
Stacey Washburn

INTERVIEW

Owen Gingerich
the man behind asteroid 658-1980CK
David Steensma

ART

photograph
DON ZEILENGA
mezzotint
mezzotint
JOSH COOLEY
photograph
DON ZEILENGA
drawing
ROB PATETE
drawing
ELIZABETH BOYD
drawing
KAREN MEINEMA
photograph
 DAN ESMHOF
cover
CONRAD BAKKER

(untitled)
JEREMY LLOYD
nature
DAN ESMHOF
Weepers & Sowers
CHAD ENGBERS
The Vigil
AMY OLSON

This month's special:
clip and save on tuition

NOVEMBER 1991
My eleventh-grade history teacher had a placard posted on his classroom wall which listed "Ten Sure Ways to Fail." Most of his "anti-suggestions" reflected his dry sense of humor and his exasperation with my unruly class. They were pointed appeals for the class to adopt some rudimentary study skills—things like, "Never re-read your notes after class," and "Don't worry about anything the teacher doesn't write on the board." But one of the items on that list was the cryptic phrase "Always use buzzwords," which, he stated emphatically, applied not just to his class but also to "real life." As the semester went on, my classmates and I came to understand that by "buzzwords" the teacher meant loaded political slang and single-word "zingers" (which often have derogatory or negative connotations) that refer to particular groups and their ideologies. What my teacher objected to was not brevity and verbal economy, but rather the use of words to serve a personal prejudice and to slam someone else's ideology without having to explain exactly what those words mean or to justify a point of view. He wanted to prevent my class from learning to brandish verbal weapons in order to cover up a lack of genuine understanding of the issues. The teacher wanted us to learn to use words like "liberal" and "conservative" in as thoughtful and objective a way as possible, that is, without sneering and without the prefixes "bleeding heart" and "redneck." Perhaps my teacher was too idealistic and naive; perhaps it is the nature of all political language to be biased. But at present, the vocabulary we use to discuss current events and politics is so saturated with these buzzwords that fair, intelligent discourse is nearly impossible.

The buzzwords I have in mind fall into two broad categories. In the first are words or phrases that color one's own viewpoint in a positive light and make the opposing viewpoint look as unattractive as possible, if not evil or just plain stupid. Anyone who has expressed an opinion on the abortion debate will have encountered and used such buzzwords. For example, those who oppose legalized abortion sometimes label their opponents "pro-abortion" or "pro-death," neither of which is completely accurate. Even if one opposes legalized abortion on moral grounds, it is hardly fair to say that those who think abortion should be legal are advocating it in all cases and are in effect saying, "Go out and have one; it's the perfect solution!" Most likely, those on the so-called "pro-choice" side see abortion as an unfortunate but sometimes necessary last resort. "Pro-choice," on the other hand, clamor that they favor a "woman's right to choose" and "women's reproductive freedom," implying that "pro-lifers" must therefore oppose this "reproductive freedom" (whatever that means) and wish to deny women any options for birth control. Of course, this caricature of the "pro-life" stance is ridiculous; many "pro-lifers" do believe that women should have contraceptive options, but the killing of a fetus should not be one of them. Most of the vocabulary of abuse or accusation associated with this controversy belongs to this first category of buzzwords. Because they are incomplete in meaning, they can be deceptive, and therefore they can prevent productive discussion of the issue.

Included among the second type of buzzwords are words perfectly legitimate in and of themselves. When used in their original sense, they function as more or less neutral, descriptive words. However, they have evolved into insults that opposing camps hurl at each other, and they have thus ceased to serve any function other than that of a putdown. The seemingly innocent...
adjectives "liberal" and "conservative" are examples of this; they have lost whatever purely theoretical meaning they might have once had and are seldom used in a fair-minded manner. For instance, the controversial essayist Shelby Steele has been branded a "black conservative" by many who attribute to themselves only the positive aspects of the term "liberal," and are obviously making a normative statement about on which end of the political spectrum good African-Americans belong. Do we ever feel the need to specify a "white conservative"? Steele rejects this label, considering himself to be a "liberal in the classical sense." In this situation, people are grappling with the frustrations that such mutation in the meaning of words has produced; Steele feels compelled to re-infuse the term "liberal" with a more traditional and objective meaning.

The abundance of such buzzwords and the dearth of useful, more impartial language in our political vocabulary may point to a lack of respect for others and their ideas. It may also be evidence that, for lack of confidence in their ideas and a fear of committing to an opinion, people have given up on the prospect of rational discourse as a way to resolve conflicts. Name-calling is a sign of immaturity, malice, or despair. If we want simply to advance our preferences, name-calling works. But to win arguments and elections in this way is to win cheaply and avoid intelligent, productive communication. I do not mean to propose unofficial censorship of our language. I am not suggesting, either, that we should tiptoe around important issues to avoid offending others with whom we may disagree, or that we should refrain from taking a firm stand on moral issues and instead cave in to relativism. On the contrary, we should engage in vigorous, even heated dialogue concerning issues about which we feel passionately and problems afflicting our nation, our churches, and our families. Such discourse is healthy and necessary. But people cannot conduct such discourse and justly examine important issues when they do each other verbal violence in both subtle and overt ways. Our conversations must be purged of such one-sided and deceptive language if intelligent discussion is to occur. A new and more just vocabulary is in order.

This problem is not a new one. In his essay *Nature*, Ralph Waldo Emerson said of the decay of language,

A man's power to connect his thought with its proper symbol, and so utter it, depends on the simplicity of his character, that is, upon his love of truth and his desire to communicate it without loss. The corruption of man is followed by the corruption of language. When simplicity of character and the sovereignty of ideas is broken up by the prevalence of secondary desires, the desire of riches, the desire of pleasure, the desire of power, the desire of praise,—and duplicity and falsehood take place of simplicity and truth, the power over nature as an interpreter of the will, is in a degree lost; new imagery ceases to be created, and old words are perverted to stand for things which are not; a paper currency is employed when there is no bullion in the vaults.

Even pithier is Samuel Johnson's advice to James Boswell, as recounted by Boswell in his *Life of Johnson*: "My dear friend, clear your mind of cant."
If and when we should ever hold hands, please don't squeeze too hard; (I'm not that passionate).

Jeremy Lloyd
It was really very simple. I jumped off a boat during a family vacation in Galveston, Texas. My three sisters, two brothers-in-law and I took a midnight jazz cruise on a Mississippi paddle wheel steamboat from 1924. It was red, white and yellow with three decks, two smokestacks and fancy trim. It looked like a cake. As we paraded up the gangway, a crew member in white polyester instructed us to stop, turn, and smile into the flash of a polaroid camera. Thus processed, we joined the other passengers at the rail, but the ticket boys were the only ones left on the pier to wish us bon voyage, and I don't think they knew French. Right off I noticed the life preservers hanging decoratively on the exterior walls of the central cabin. “The Colonel” was stenciled in clean yellow capital letters on the shiny white styrofoam. I wondered if they had ever been used.

I began to wonder out loud to Carla. I wondered if anyone had ever fallen overboard. I wondered if anyone had been pushed overboard or jumped overboard. I wondered if it really did happen, or if it was so unusual that no one ever saw it except in the movies and on T.V. I asked Carla if she knew of it ever happening in real life. She said a disinterested no.

But to me, the concept of a body going overboard was sensational. I leaned against the rail with the cool, damp metal pressed into my ribs, watching the water leap away from the sides of the boat in foamy ruffles. The sound of the water splashing past muted the Muzak seeping out of the lounge behind
us. It was June or July and warm even though it was after eleven. In the open channel we gained speed. The breeze twisting through my hair was delightful.

A sleek woman with silver saucer earrings complained about the humidity until her tuxedoed escort took her inside. A man with crazy, white wiry hair and bare, sunburnt legs sat down on one of the park benches bolted to the deck. A woman wearing two coral and shell necklaces crowed over the lights on the water. A party of about five men strode across the deck brandishing their drinks in front of them and emphasizing every third word for effect.

"They have to save you," I told Carla. It was true. I had worked the idea until I was convinced there wasn't a catch, wasn't a little disclaimer that would allow the crew to leave a passenger floundering in the ocean until he or she drowned. If I jumped overboard they would be compelled to throw in the life preservers and save me. It was almost too simple.

When Carla went into the lounge to find our party, I strolled to the stern and watched the paddle wheel. It slapped the water with loud smacks, but it wasn't loud enough to disguise the mechanical grinding of the real propulsion. Disappointed, I entered the souvenir shop and perused the standard tee-shirts, paperweights, postcards and keychains before descending to the lounge.

I joined my party at one of the dark wooden tables near the service bar, and asked them if they had ever known anyone, or about anyone, who had jumped off a boat. They all admitted they hadn't. I discussed this with them, explaining that the crew would be obligated to save me if I went overboard, and asked them what they would do if I did. Carla said she wouldn't do anything. No one else commented. Across the room the four man band finished setting up, and after a few introductory squawks and plinks and taps, began to play. Floor lights glowed in a small square on the floor where the deep red carpet met the dance floor wood. We took off our shoes and danced to the jazz.

Back at the table, careful not to rest my arms on the slightly sticky surface, I told my family
I was going to jump overboard. Kevin bet me five dollars I wouldn’t do it. I told him I was serious and gave him a chance to take it back. He wouldn’t, so I shook hands. It was the first time I had ever bet anyone anything. I took my earrings off and laid them on the table, telling my sisters to alert someone so that I could be saved properly. Barbie agreed. Carla fidgeted in protest. Debbie was already trying to pretend we weren’t related. I asked them for one good reason why I shouldn’t jump off the boat and let myself be saved. They couldn’t think of one. I stood up and went outside.

On the second balcony deck the railing came only to my waist and there was a vertical support extending higher. Jack appeared and grabbed my arm. He told me not to do it. I smiled and took my arm back. Unnerved, he disappeared inside. I climbed up to stand on the two inch width of metal, holding onto the support with one hand. Then I let go. My toes curled around the cold rail, and I balanced there for a moment, feeling the motion of the boat and tasting the salty wind.

I dove. My feet hardly splashed on the surface, and I went down deep. The black water parted smoothly for my body. I swam hard away from the side so as not to be sucked under the craft. The reality of what I had done scared me for a moment, but by the time I came up for air the breath I let out was a laugh. The distance already between myself and the boat was greater than I had expected. The paddle flopped around and around, ever smaller and quieter, like an afterthought.

Inside, Jack announced to my sisters that I had jumped. Carla was mad, and said that she hoped I could tread water for a long time. Debbie sat quietly, calmly worrying. Barbie went to tell the bartender.

I treaded water, avoiding the dark masses of sea weed. The water temperature was lovely, and I kicked my feet and giggled as I floated on my back and found Orion. It was a very clear night. The boat didn’t slow or change course, but paddled away leaving just a drift of jazz and flickering lights. I surveyed the industrial shoreline and decided I could swim in if I needed.
When Barbie told the bartender that someone was overboard, he asked her what she wanted to drink. She tried again and was met with the understanding but unresponsive face of one accustomed to dealing with persons in an altered state. She was insistent and asked him what he was going to do about it. He told her that nobody had ever jumped overboard. Aware of the time that had passed, Barbie finally screamed at him in her shrill, southern voice. The music stopped. The dancing stopped. Conversation stopped. Glasses were set down.

Finally the small string of lights swung around and after a few minutes a spotlight panned the water. I laughed. They were still very far away. Eventually they came close enough for me to hear a man yelling unintelligible things through a megaphone and see a row of silhouettes at the rail of the upper deck. They found me by my laugh. The spotlight encircled my bobbing head for a moment, but drifted off to my left as the boat maneuvered to a stop. It picked me out of the darkness again, this time for good, casting a halo of light on the water around me.

My eyes were adjusting to the light so I heard the splashing before I saw the lifeboat weaving toward me. The figures were barely discernable. Then four black hands hauled me out of the water and over the foot wide side of the inflatable, rubber lifeboat, dumping me in an undignified heap of arms and legs and limp clothing. I grinned and asked them if they had ever saved anyone before. They said no, watching me warily as they wobbled the boat back. They were young, and I asked them their names thinking I might send them postcards thanking them, but I never did, and now I have forgotten their names.

The hand that gripped my arm and pulled me up onto the deck was older, stronger and rougher. The passengers crowding around were ordered to move away because, as crew members repeated, I was okay. Barbie showed up next to me with a big grin. I looked down at my dripping body and had to giggle in spite of the large crewman standing behind me with his fingers still pressing hard into my upper arm, as if he thought I’d jump again.
One of the fancy life preservers lay glistening at my feet. It had been thrown in. But poorly thrown and tangling in its own rope, it had landed only a few meters from the boat. I hadn't even seen it.

A woman with an unpleasant voice and a sharp nose informed me that the captain wanted to speak with me immediately and instructed me to follow her. Barbie accompanied me, asking if the water had been cold. I told her no, that actually it had been quite warm. As I climbed the steps, I tried to squeeze some of the water out of my hair.

The captain's cabin was elevated above the third deck and I could see the orange industrial lights on shore winking in at me. The captain looked terribly undone so I tried to be very serious, but I was beginning to puddle on the floor. The first question he asked me was whether I had fallen overboard or jumped overboard. "Well, actually I dove," I said. With a twitch he asked why. "I'm not exactly sure, sir," I said. He asked me if I realized it was a federal offense. "No, sir," I said.

I got a lecture on endangering everyone on the boat. I didn't follow the logic, but I was very respectful. I didn't think to ask how long I had been in the water. The captain wanted to see ID, but since I didn't have any, Barbie explained that she was my sister and would vouch for me. I'm not sure what she meant by that, but since she didn't have any identification either, I don't think it mattered. Then the man with mean hands came in and asked the captain if he should call the Coast Guard. The captain said no. He just gave me a sheet of paper and a pen to write down my name and address, but water dripped down my arm until the paper was transparent.

They let me out and I went to the rail to look out over the dark, gelatinous mass of water. A couple standing to my right began to move away. I told them not to worry, that I didn't push people, I just jumped. I laughed at my own joke. They didn't. They left. For the rest of the cruise I sat on the third deck, in front, where the wind flattened itself against me.

When I went to bed my hair was still wet and smelled like the ocean.
nature

I swim the cold
and taste the lake
sweeter still
I cannot make
the waves still
count the sand
or paint the sun
set with my hand

God set me free
from all my fear
sing soft and still
small voice my ear

Let nature run
course through my soul
finding diamonds
in lumps of coal

Dan Emshoff
I went to Santo Domingo to help; I didn’t know I would leave feeling helpless. Deciding earlier in the semester that I would use my interim to put in some “quality” volunteer time in a Latin American country, I arranged to live with a missionary family from my church. For four weeks I stayed in Santo Domingo, the capital of the Dominican Republic, and drove to the sugar cane fields every morning to work at a village school in Batteye Bienvenido. The natives called it a village, but it looked more like jumble of shacks scattered in a clearing of the cane field.

The first time I traveled the road of jagged holes and packed dirt, a herd of plodding, long-horned cows greeted my blue jeep, staring at my approach, and then sedately wandered off to the side. A line of dark-skinned boys, balancing propane gas tanks on the handlebars of rusty mopeds, buzzed toward their respective villages. A young woman dressed in a long skirt and faded T-shirt sauntered along the edge of the cane

I WANTED TO HELP  Stacey Washburn
fields, her naked infant supported on her hip. The bright green of the field framed the blackness of her skin, and the uneven weight of the child added a swaying grace to her walk. She looked native and beautiful. I felt as if I were an intruder, only a foreign observer of the land into which the boys and woman fit so naturally.

The crude bridge I crossed covered a river in which the villagers washed their clothes. Turban-headed women were bent beating their laundry against the rocks. A pair of barefoot boys wielded wisps of branches and guided a small, nervous group of ponies along the bank for their morning drink. The ponies pushed forward, upsetting a basket of clothing waiting to be beaten. The women shouted, and the boys scampered among the flailing arms and scuffling ponies. The shouts faded into the vastness of the cane fields. The shouts belonged to the cane fields, but now I hear them echoing in my mind.

The road veered towards a steep hill and entered Batteye Bienvenido. Pigs, chickens, and mangy dogs nosed through dark piles banked against the walls of dilapidated shacks. Children occupied every nook of the village. A naked baby sat surrounded by a pile of rotted sugar cane stalks, poking them with a cracked wooden spoon. An unsteady toddler determinedly followed a pregnant hound, continually reaching for her just-out-of-reach tail. Young mothers wandered from shack to shack with babies swaying on their hips or tottering behind, while grandmothers slouched in open doorways observing the new morning. Most of the men were gone cutting cane. Only ancient, wrinkled men stared vacantly, and adolescent boys leaned against mopeds, staring insolently, almost defiantly. I entered the school building to escape the intensity of the stares, stares that defended a village I wanted to help. Inside the green, wooden school building a small chalkboard dominated the front wall. Six rickety benches of the same green wood crowded the dank interior. The only light entered
A torn map of the world, curled at the edges, tried desperately to stay attached to the back wall. Was the real world curling in at the edges?

through two slatted windows creating dusty streaks across the chalkboard. The smell of cooking food, mixed with the odor of rotting garbage, filtered through the windows and out the doorway — an endless circle of stench. I bit my lip to keep from gagging. I had thought I was going to take the students out of the stench. In spite of the humidity, a torn map of the world, curled at the edges, tried desperately to stay attached to the back wall. Was the real world curling in at the edges?

The children jostled each other, brightening the room more than the slanted rays of light did. Wiry hair sprouted from their heads. The girls tamed their hair by tying various parts of it in knots. But it always continued to spring from the confining knots and stick out as wildly as the boys' hair. Their hair seemed an outward symbol of their inward wildness; confined to the classroom and the batteye, they longed to be free. The teacher of the class turned his back to the students as he wrote on the board. He wrote slowly, perhaps to prolong the time during which he did not have to face the children. Bowed heads and grasping fingers containing barely controlled energy copied the alphabet from the chalkboard into cherished notebooks. I was beginning to understand the despairing expression on the teacher's dark face.

I called out the names of the three slower students I had come to help, and they proudly stood and followed me. The envious looks of the uncalled students followed them. They too wanted to escape the classroom. As I was leaving I saw the map had slipped and was now attached to the wall by one corner. I closed the door, and we walked across the barbed wire-enclosed schoolyard to the church, which was an exact replica of the school building, except for the cheap, wooden pulpit adorned with a bouquet of plastic flowers. There, I drilled my kids with flashcards to help them grasp the difference between the letters "b" and "d."
Their faces puckered in concentration and smiled with relief if I nodded my head that indeed they had guessed "b" as "b" and not as "d."

The mornings of drilling with flashcards continued. Each day I beckoned my appointed students to come and sit with me. They grew accustomed to my colorful cards bearing black letters in bold marker. I drew pictures of words that began with each letter, pointing to my sketch and then saying the word, hoping they would connect the sound with the picture and the bold-face letter. Their dark eyes never left my pale blue eyes. I was so sure they were understanding. However, every day I would have to start from the beginning. In spite of the children's transfixed attention, they could not retain my emphatic explanations. I remember being driven by the urgency of wanting to teach them to understand the importance of those letters. How did I miss the deeper urgency of their eyes searching mine?

For four weeks I drove through the cane fields and watched the steady rhythm of Dominican life: the women doing their wash, the villagers sitting in their doorways, and the children struggling with the alphabet so they could eventually read street signs and accompany their illiterate parents to the market. I stood stationary, outside the native rhythm.

On my last day, a little village girl asked if she could come home with me. She knew I would leave and escape her village and that she could not. I entered the dank green school, said goodbye, and passed out American suckers. The candy delighted the children. They waved and reached out to me. Out of habit I glanced toward the back wall. The map had fallen. I had wanted to help, to make a difference in the lives of the children in Bateye Bienvenido. Perhaps they will remember the suckers...
Weepers & Sowers

I

The beggars lurk about me in the night
Like mongrels whining for a filthy bone.
Repulsive dogs! Don't let me hear you groan;
My stomach sickens at your wretched sight!
Your hunger and disgrace must serve you right:
The sower reaps exactly what he's sown.
Your sinful lot is yours to bear alone;
That's why your clothes are filthy; mine are white.
The die of destiny has once been tossed;
Now I have won the game and you have lost.
A sorry loser is the one who weeps,
So stop the tears—you knew we played for keeps.
Your burden you have earned; how do you dare
Beg me to take the load which you must bear?
II

The beggars crawl like cripples through the night,
As wounded shadows; hear their hollow moan.
O ghostly chorus, how your lonely tone
Enchants my heart to help you in your plight!
One day we both shall wear our robes of white:
The sower reaps exactly what he’s sown.
To help you bear the burden you’ve been thrown
Is thus the way for me to serve you right.
The Father hears your tears; we know he keeps
The sorry soul who for forgiveness weeps.
Until we die, our game’s not won or lost;
We struggle in the world where we’ve been tossed.
May Jesus use my life to show His care;
Your burden is a load for me to share.
The Vigil

I'll hold you
While shadows waver
Along the wall
And crickets creak
A lonely lullaby.
Baby, sleep
I'll stay.
Dream of angels
While I pray wide eyed
And touch your shaven cheek
With softest lips and fingertips
Watching you
Breathe.

Amy Olson
Owen Gingerich is not a typical astrophysicist.

He can be likened to the asteroid named for him, which is “separable from the great mass of asteroids” in which it is located. I spoke by telephone with the noted Harvard professor at his office in Cambridge, Massachusetts, about his career as a distinguished astrophysicist and science historian and some recent trends in those fields.

Born into a Mennonite culture, Gingerich grew up in a conservative community with some remarkable similarities to the Christian Reformed culture. He did his undergraduate work at Goshen College in Elkhart County, Indiana, a small, private, liberal arts college affiliated with the Mennonite church. After receiving a bachelor’s degree in chemistry, Gingerich went on to get a master’s degree and later a doctorate in astronomy at Harvard University, where he has taught since 1960.

Gingerich’s scientific interests currently center on the history of science and the nature of that discipline, but this hasn’t always been the case. “I started out as an astrophysicist. In my graduate studies and for ten years thereafter, I worked on the question of stellar atmospheres, that is to say, the physical conditions in the outermost layers of stars that give rise to the observed spectrum of those stars,” he said. This atmospheric research focused particularly on our own sun and provided a test case for theories that can be extended to other stars. One of Gingerich’s astrophysical papers has become a citation classic and is referred to more than 500 times in other articles.

I first asked Gingerich about the important astrophysical topic of the sun’s corona, the layer of gas surrounding the sun. One of the major discrepancies between theoretical prediction and experimental observation in
contemporary astrophysics concerns the observed temperature of the corona, which appears to be much warmer than current understanding estimates. During this past summer's solar eclipse, which occurred directly over several important observatories in Hawaii, astronomers closely scrutinized the corona. "It's surprising to many people to think that you have an object which is maybe fifteen million degrees [Kelvin] in the middle [and] by the time you reach the outer atmosphere, which is what I was studying, it has an average temperature of around 6,000 degrees Kelvin . . . . It drops to a minimum of around 4,500 degrees, and then the temperature goes up very abruptly into the corona, reaching a temperature of around two million degrees," Gingerich explained. "An astonishing fact about temperature is that in most of the universe, temperature is not unambiguously defined . . . If you could be bathed in the solar corona and have an impervious heat shield to block off the sun's direct radiation, you would freeze to death despite being in this two million-degree atmosphere. The reason for this is that we are kept warm by collisions of atoms in the atmosphere, and temperature is reckoned by the speed at which the atoms are going. If you have very, very few atoms, even if they are travelling at speeds typical of two million degrees, there aren't enough of them to give you enough energy to keep warm."

During his years of graduate work, Gingerich served for a period of time as the Director of the American University Observatory in Beirut, Lebanon. Since that time, he has done a great deal of work in the history of science. Although he has never received any formal training as a historian, Gingerich has distinguished himself in this area as well as in astrophysics. In 1981 he received the Order of Merit, Commander Class, from the People's Republic of Poland, in part because of his historical work on the Polish astronomer Copernicus. Just weeks later, a military takeover occurred in Poland, and the official who had just presented the award to Gingerich defected to the West.

I asked Gingerich if he had noted any recent trends in the field of the history of science. He explained, "When the history of science emerged as a discipline in the second half of the last century, people began to use manuscript materials for the first time to try to put together an understanding of scientists in times past and of the development of science. Throughout much of this century, it's been understood that there is a very rich territory and a great deal of information that can be mined to try to find out exactly what was going on with a particular astronomer or physicist as he was coping with the data and [attempts] to recover his thought processes. As a lot of that material has now been put into place, historians of science are tending to look at problems more broadly. There has been a considerable contextualist movement to try to understand the development of science with respect to the tools that were available, and whether these
tools were available to everyone or only a few people who had either the means or the expertise to get them. If there were only a few people with access to these instruments, how could they persuade others of the truth of what they were saying?

The history of science has gradually become more broadly a part of history with much less emphasis on the details of science.

There's much more being done with regard to the way in which society helped condition the research agenda and the acceptable solution. . . . The history of science has gradually become more broadly a part of history with much less emphasis on the details of science.

"Needless to say, there are still strong practitioners who have come in from the sciences who are very much looking at those kinds of details," Gingerich continued. "If you want to do a history of twentieth century astrophysics, let's say the pioneering work of [English astronomer, physicist and writer Sir Arthur Stanley] Eddington in the 1920's, you have got to have a very strong background in astrophysics to sort out what he did. If you're working on Copernicus, you had better know some Latin, but it isn't necessary to have the full details of nineteenth century celestial mechanics to understand Copernicus, nor is it necessary to know seventeenth century mathematics to understand [him]."

Gingerich's comment about societal conditioning of the research agenda and of acceptable solutions is interesting, particularly in light of the debate within the Christian Reformed church over whether or not certain questions can legitimately be asked by Christian scientists. Gingerich, who belongs to the Mennonite Congregation of Boston, feels his church has not viewed his work nearly as critically as the CRC has seen that of Calvin Professors Van Till, Menninga and Young. "I've never [been in] a situation comparable to that which has involved Howard Van Till and other people. . . . Creationists have certainly had some appeal to members of Mennonite congregations across the country, but there has never been a churchwide issue that has come to any kind of a head on this. Historically, it was a big issue in the '20s and '30s, but since then, our more scientifically inclined members have tended to be active in the American Scientific Affiliation, as Howard Van Till and many of your faculty are. I think that the American Scientific Association maintains a very open attitude about evolution, and this is reflected among the Mennonites in terms of those people who are trained in biology and geology and who are equipped to think about those questions," Gingerich stated. Gingerich declined to comment at length about his views regarding the creation/evolution debate, in part because he will be speaking on the topic of "Modern Cosmogony and Biblical Creation" at this year's January Series.

Although he doesn't feel he does his work much differently from other astronomers and historians of science due to his particular belief system, Gingerich does believe that his basic interests in cosmogony and the history of science arose because of his Mennonite background. "I came from a group where questions about evolution and natural selection were still almost taboo when I was a high school and college student, and trying to come to terms with that has made me become in-

DIALOGUE
interested in the history of science. I have discussed this a number of times with practitioners in the history of science who find it a sufficiently noticeable phenomenon to comment on.”

Throughout his long career of examining these questions, Gingerich has received a number of honors. In addition to the Order of Merit from Poland, he received Phi Beta Kappa distinction and the John F. Lewis award of the American Philosophical Society for his important paper “From Copernicus to Kepler: Heliocentrism as Model and as Reality.” Asteroid 2658-1980CK was named “Gingerich” by the International Astronomical Union’s Minor Planet Bureau, and just a few days before I spoke with him, Gingerich was awarded the “Culture and Service” award from his alma mater, Goshen College. When asked which award he values the most, Gingerich laughed. “I've never thought about that before! It's not the sort of thing one spends one's time thinking about. I was rather tickled to have the asteroid named after me…. I also appreciated the ‘Culture and Service’ award a great deal.” Although Gingerich has never seen his asteroid in person, he has viewed its location on a chart of several thousand such bodies. “I was real pleased that it was separable from the great mass of asteroids. It has a somewhat eccentric orbit, and therefore its position made it stand out a bit,” he related with a chuckle.

A number of professional and scientific organizations can claim Gingerich as a member, but one of these is perhaps the most unusual group to which an astrophysicist might belong. Gingerich is an active member of the American Malacological Union, an organization for researchers and others with a serious interest in mollusks. “That's because my wife and I are passionate shell collectors,” he explained. “This happened as a result of our going on a Harvard alumni cruise to the South Pacific at the time of Halley's comet.”

A prolific writer, Gingerich has written, edited, or translated nineteen books, seven of which are available in the Calvin Library. He also has a large number of articles attributed to him, including 130 technical or research articles, 150 educational, encyclopedia, or popular articles, and 150 reviews. The writings of a Calvin professor are one of the primary reasons Gingerich accepted an invitation to speak at the January Series this year. “I've been a friend of Howard Van Till's for a long time, and I admire his writings, and so I've always felt that if there should be an occasion to come to Calvin College, I would accept it,” he said. The basic text of Gingerich's upcoming January series lecture was published in the March main selection of the Book of the Month Club, an anthology entitled The World Treasury of Astronomy, Mathematics, and Physics, edited by Timothy Ferris.

What does the future hold for Gingerich? He will undoubtedly continue to write articles and give lectures and discloses no plans to leave Harvard University. “I'm having so much fun here, and I'm being paid to do it. I might as well stay,” he reasoned. It is from this enviable position that Dr. Owen Gingerich will continue his career as an internationally known astronomer and historian of science.
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