**Hippocrene** is an arts magazine by and for the students, staff, and faculty of the Washington University School of Medicine in St. Louis (WUSM). We accept submissions year-round and publish each spring. Issues are freely available to all current medical students, graduate students in the Division of Biology and Biomedical Sciences (DBBS), and medical school and DBBS faculty.

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With special thanks to Andy Wiegert

*To foster a formalized arts tradition at Washington University in order to add richness to the medical school community. To provide a resource for students and groups in the cultivation and representation of art—in all its forms—on the medical campus.*

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**Hip•po•crene**, noun

*hippos ‘horse’ + krene ‘fountain’*

1) A fountain on Mount Helicon, fabled to have burst forth when Pegasus stamped his hoof; believed to be a source of poetic inspiration

2) The literary magazine of Washington University School of Medicine
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Abstract
A reflection on what we have learned after years of research

Decoding Information From The Human

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Encoding and decoding research in humans aims to explore the human. However, these are constrained by limitations. Despite promising studies, there are no prior studies investigating decoding of the hemodynamic correlates of ensemble activity measured with HD-DOT. Here, we evaluate visual decoding with HD-DOT.

Using HD-DOT systems developed at Washington University, we imaged adults as they viewed various visual stimuli. A template-matching strategy was used for decoding: (1) training data were block-averaged to construct "templates" of the oxyhemoglobin response for different stimulus conditions, (2) Pearson correlation coefficients were calculated between each template and independent test data, and (3) the template with the highest correlation indicated the stimulus state in the test data. First, we assessed stimulus position decoding with checkerboard wedges presented to either the left or right visual hemifield. This binary decoding was highly sensitive, specific, and reproducible; e.g. ROC analysis of decoding across 10 sessions in a highly sampled participant yielded an area under the ROC curve of 0.98. We then explored decoding of stimulus location in greater detail using a checkerboard wedge that rotated through 36 positions. Across 3 highly sampled participants, stimulus phase was decoded within subjects with an error of 25.8±8.9°. Finally, participants watched 4 naturalistic movie clips twice each and we investigated decoding of clip identity using separate presentations for training and testing. Here, mean decoding accuracy across 10 sessions was 80%. This work shows that a range of visual information can be decoded from HD-DOT recordings of hemodynamic signals reflecting activity of neural ensembles in human visual cortex. Our findings encourage future studies of other decoding (e.g. language, movement) in clinical populations with HD-DOT.

Kalyan Tripathy, WUMS
Carpentry

My uncle Jon’s hands are cracked and toughened, perpetually dry and grease-stained. Jon is a carpenter—not just a handyman who is good with tools, but an artist who takes pride in everything he works on. He is soft-spoken, yet he brightens when explaining a project, and his passion comes alive through those rough and meticulous hands.

Each Memorial Day, I’d drive up with my dad and Jon from Boston to the Maine coast, where the frigid chill of winter still lingered in the pines. We were in charge of opening up the house for the summer—fixing any pipes that broke during the deep winter freeze, replacing a broken toilet or sink, and patching up the holes in the seawall in an effort to hold off the rising tides. Sometimes, we re-built railings or benches, or added yet another coat of white paint to the chipped porch furniture.

Why did I volunteer to labor in the chilly Maine springtime? For my dad and uncle, fixing up the house in Maine wasn’t a chore—it was a privilege, approached with the same excitement they’d felt when building model airplanes as kids. The house was old, perched overlooking the ocean, at prime risk of the rising tides, but it was also magic. It tied our distant family together and brought back memories of running barefoot along the rocky shore, chasing crabs, collecting seaglass, and building secret forts out of driftwood.

Leading up to Memorial Day, my dad and Jon would deliberate for weeks on the right secondhand sink to replace the antiquated current one or what type of mold-resistant shower curtain would best suit the old clawfoot tub. When the weekend came, we packed into the car, amidst the sink, tools, and winter layers, but as we crossed the bridge onto the island, we rolled down the windows to be welcomed by the salty Maine air. Those weekends, I learned about basic plumbing, wiring and power tools, but I also learned of the power that stems from taking pride in one’s work and tending to even the smallest details.

Once, as we re-built a simple railing, I watched Jon’s hands as he talked through the steps, calloused and discolored, deep fissures threatening to obliterate the epidermal ridges of his fingerprints. We soon fell into silence, yet those expert and caring hands conveyed a message more powerful than spoken language could express: Jon’s love and pride for our house, this island, our family, and the memories our house holds.

During those bone-chilling weekends in Maine, watching Jon’s seasoned hands at work revealed to me that regardless of the task—a simple porch repair, a complicated wiring fix, the splinting of an arm, or a 10-hour osteosarcoma removal—pride and care in each endeavor can hold tremendous power. For now, I still have a lot to learn. My fingers are clumsy, slow and awkward. One day though, when years of experience have unlocked my skill and dexterity, my hands will have the power of my uncle Jon’s.

Emma Payne, WUMS
Garden Musing

Tatum and Sal built a small wooden home
And they planted a garden to grow
Where the soil is lush and the grasshoppers roam
In a forest that never sees snow

Sal planted cantaloupe, citrus, and kale
Tatum grew lettuce plants neat in a trail
Sal watered lentils and bean plants so high
The grasshoppers never would so much as bite
Although they did feast on proud trees in the night
When crossing the garden, their senses did fail
They left the bright garden plants spry

Sal gathered cedar wood, built a small clock
That rang when the morning sun called
Tatum tossed salad and kept wine in stock
To keep her companion enthralled

And free, wild Santi, with skin dipped in sun
Came humming along day by day
He sat by the garden, from where he would stun
Smart Tatum who always would say

“Oh Santi, come play with me, sing while I paint,
I’ll capture your colors in oil,
I’ll draw you and dress you until you feel faint
And fall on your back in the soil.

It helps the plants grow when you bathe in the water
Your humming enhances the dirt
Oh please, bless my house that should I have a daughter,
She too has a friend and a flirt.”

But Tatum would warn him to never set foot
Too close to the leaves of the flowers
For Sal had ensured the right fix of the roots
And checked them at regular hours.
At twilight, the petals all closed for a time,
When Tatum and Sal took to bed.
At daybreak, the cedar wood clock sang its chime,
And Tatum and Sal shared their bread.

One warm day the grasshoppers perched in their nests
And Sal swept the garden quite neat.
The irises blossomed with deep purple crests.
The citrus and kale bloomed so sweet.

Tatum sat building a musical drum
And for Santi she crafted a song,
For Sal she created a flute from sweetgum
So that he would in time play along.

She tended the garden with Sal at her arm
And smiled at the prosperous plants
She cherished the flowers and did them no harm,
Made peace with the friendly red ants.

Santi stood by with two eyes piercing green
Inspiring grass to grow wild.
His tan was more striking than ever she'd seen.
His scent on the wind was so mild.

Inspired to artistry, Tatum began
To craft a long garland of roses.
She draped it around the smooth form of the man,
And they touched just the tips of their noses.

“I just need an iris to make this complete,”
Said Santi all covered in red,
May I step in your garden and pluck one so sweet,
Their stems snap like delicate thread.

Tatum was hesitant guarding the soil,
These plants must not meet careless hands.
The life they produced was the product of toil,
Consistently washed were their sands.
On the clock day by day, she and Sal worked away,  
Should devotion not stray.  
Their desire dedication, never fretting frustration,  
Steady progress, their pleasure,  
Stable growth, certain measure.

“I cannot trust you snipping an iris’s stem,  
Said Tatum so firmly and clear.  
But do what you wish if you must conquer them  
I won’t have you needlessly fear.

And trusting a muse is a dire mistake,  
Thought Tatum from that moment onward,  
For one snapping iris stem made the ground shake,  
And hearing the sound that those grasshoppers make,  
Tatum retreated to hide from those flying  
Most ravenous insects that left her muse crying.

The grasshoppers gorged in a gluttonous landing  
And left only one lonely citrus plant standing.  
While Santi just crumbled at once in the dirt,  
And Tatum fought grasshoppers off with her skirt.

Everyone must have a sidekick and muse,  
The roles of the two you should never confuse.  
A friend to rely on, a lover to spy on.

Sal, never angry, reached Tatum, embraced her.  
The clock chimed for evening  
He smiled and faced her  
To replant a garden, is much an endeavor  
But music may echo, some seeds last forever.

Relieved and exhausted they slept through the night  
And Tatum woke happily, all would be right.

Anna Dowling, WUMS
Iguana iguana: the ‘green plague’ | Jesus Santiago-Borges, DBBS
Impact

knees bent back straight shoulders up abs tight eyes wide breathe in –

Impact.
Squeeze.
Heat and flesh, twisting bodies –
Squeeze.
Hold.
Drive through.
Arms wrapped,
Shoulder in her gut
Chops her like lumber
Coming down now –
Squeeze.
Tossing, muddy,
Eardrums pounding,
Head reeling,
Eyes open – get up!
Bodies passing, cleats treading
Down the pitch, now…

knees bent back straight

Caroline Scott, WUMS
Igneous

The last segments of the puzzle locked together with a click, igniting a bright beacon on my internal map of the arena. I set off at a sprint, flying across a wide-open field. The open air soon gave way to the surrounding forest, and I wove through crowded underbrush, the thorns tickling my skin. Finally, I broke out onto rocky ground that sloped down towards a quick-moving stream. To my right, a wooden bridge spanned the waterway.

I stopped, scanning the area with my vision overlay engaged. According to my map, the beacon should be nearby, but the overlay revealed no telltale green flash. I furrowed my brow. Was it buried? Unlikely. Obliquely or directly, the Examiners always gave us what we needed to succeed. There had been no shovels this time, nor a tool shed from which to select supplies. Masked? Possibly. There were ways to trick the internal map software that would conceal any digital identifiers. I probed into the arena’s code, but found no signs of masking. The beacon had to be visible, and it had to be close.

A third option occurred to me like a thunderclap: physical concealment. Simple, brute-force, not something a highly specialized machine would think to look for. I scanned the area again, slowly, looking for blind spots in my field of vision. My eyes hovered over the bridge for a moment before I realized what it was: a big, glaring blind spot.

I walked over. Sure enough, a faint green light was coming from the apex of the bridge. It was too high to reach from the water itself, but there were ample handholds underneath. With the glee that came from figuring out a particularly clever puzzle, I started climbing.

It was easy enough to reach the center of the bridge. I braced myself against the struts and reached out with one hand to grab the beacon. Its green glow dulled and the word ‘Congratulations’ appeared. Still grinning, I started back towards shore.

Or at least, that’s what I meant to do. I let my feet fall and was in the process of flipping my hands around when I spotted them: another AI, sitting on the shore to my right, apparently—I did a double-take—counting rocks. Startled, I loosened my grip for a microsecond—and fell into the water.

I stood up, sputtering, and started wading upstream towards the other AI.

They didn’t look up.

I walked closer, so that I was standing over them. They had dark, short-cropped hair, pale skin, and green eyes. They were wearing the same jumpsuit that every AI was given for these tests—blue with silver trim, tight-fitting, the AIS logo on the shoulder. They were engrossed by a rock, turning it over and over in their slender hands.

I cleared my throat.

The other AI looked up, their face impassive. They stared at me for a moment, then directed their attention back to the rock.

“Um,” I said. “What are you doing?”

“Collecting rocks.” They nodded towards a small pile they had gathered at their side.

It took me a second to process their blunt answer. “Why?”

“I like them.”

I turned away from this strange AI. I couldn’t afford to waste time talking to this weirdo, who was apparently more interested in collecting rocks than finishing the task. This was the last test before graduation, after all. I didn’t want to risk finding out what happens to AI who don’t graduate. On the other hand… I had never seen another AI so fascinated by rocks before. The competing circuits argued back and forth for a moment—then I pivoted back and sat down next to them.

“Why do you like the rocks?”

From the side, I could see their eyes light up. They turned towards their pile and selected one. “This one is my favorite of the session so far. It has this jagged face with the shiny flecks in it, so if you angle it towards the sun just so—” they demonstrated “—it produces a fascinating pattern of lights.” As they
spoke, their gaze remained transfixed on the rock.

“This one,” they said, selecting another, “looks very dull at first. I almost overlooked it. But it’s got this texture to it—” they ran their thumb over the surface.

“Can I feel?”
They grinned. “Of course.” They stretched out their arm and deposited the rock into my hand.

At first, I was unimpressed; it felt like any other rock. The surface was slightly rough, like sandpaper. But running my thumb over it produced a tingling, almost numb sensation that wasn’t entirely unpleasant.

After a moment, they tentatively reached for the rock. “Oh!” I handed it back quickly. “Sorry.”
They shook their head. “I can find you one of your own. If you want.”

I surprised myself by nodding. They stood up and walked, hunched over, along the bank, occasionally feeling rocks for the right texture.

“So, uh, have you completed the test yet?” I asked as they were searching.
They looked up, thought for a moment, shook their head, and went back to testing rocks.

“Are you going to?”
Another head shake.

“But you have to. To graduate and be placed into society.”
They shrugged.

“Do you want to graduate?”

“I want to collect rocks.”

I couldn’t argue with that. “Do you think the Examiners will let you just keep coming back and collecting rocks?”

Another shrug.

A thought occurred to me. “Do you take the rocks out of the arena?” This was strictly against the rules.

They walked back towards me, proudly displaying a rock. “Yes, sometimes. I usually get caught. It’s not fun when that happens. Feel.” They held the rock out to me.

I took it—it felt different than the last one, the tiniest bit smoother—but it still had that numbing, tingling feeling when I ran my thumb over it.

I tried another tactic. “You could collect rocks out in the human world,” I suggested. “Besides, you get to pick a name when you graduate. That’s better than a string of numbers and letters.”

“I have a name.”

“I—I mean, we all have names we’d like to pick,” I stammered.

“No. I have a name.”

I shrugged and decided to humor them. “Okay, what is it?”

“Igneous.”

I had to suppress a laugh. “Igneous? That’s not a name. You could be Ignacious.”

They shook their head, looking annoyed. “No. Igneous.”

Their ID chip read BX958. Still, it couldn’t hurt to call them by their chosen name, at least when we were alone.

“All right. Igneous it is.” They smiled, just as my timer signaled 5 minutes left in the test. “C’mon, we have to go.”

They started frantically gathering the rocks from their collection into the various pockets lining their jumpsuit.

“No time, come on.” I reached for their hand, but they swatted me away. I wavered: I wanted to make it back in time, but I didn’t want to leave them behind. “Take one, a special one. We have to go back or we’ll be late.”

“I can’t just take one; the others will be upset.”
I rolled my eyes and made a more forceful grab for their forearm. This time, they couldn't shake me off.

They looked distressed. “Let me go!”

“The rocks will be fine. They...they have their family here. They won’t be upset—but the Examiners will be if we’re late.”

They stopped struggling. “O-okay.” They waved at their rock pile and gently pulled their arm from my grip.

Igneous and I raced into the finishers’ pen just as the final alarm sounded. We were sorted into three groups based on our performance; I was placed in the middle group, the largest of the three. Igneous was pulled into the bottom group, along with four other AI who had either straggled in late or failed to finish the task. All, I noticed, were somewhat odd. One couldn’t stop muttering to themself, another fidgeted endlessly with their hair, a third seemed to be staring intensely at nothing in particular, and a fourth was making a game out of trying to poke each of their group-mates in the back without them noticing. The ten or so AI in the middle group were, on the other hand, either busy chatting with one another or looking bored. The top group, reserved for the top three finishers, hosted three rigid-looking AI, their eyes trained intently on the Examiner’s podium.

“Groups One and Two to the mess hall!” the Examiner’s voice rang out. No direct instructions were given to the third group, but as the rest of us were filing into the School building, two Guards—themselves AI—came to lead them off in a different direction.

I waited until the Examiner had gone inside before engaging my suit’s camouflage mode and following after Igneous’s group. The Guards led them down a gravel path to a pair of metal doors that led to the School’s basement. The doors creaked open, and the AI filed in. I spotted Igneous at the front, still rubbing their stone in their pocket. I snuck in just before the rear Guard closed the doors, plunging us into darkness.

My Infra protocols engaged immediately, and I surveilled my surroundings. The walls were jagged and damp, and the floor appeared to be made of the same stony material. Ahead, I heard one of the less coordinated AI trip over the uneven floor. The rear Guard grunted, yanking the AI unceremoniously up off the ground.

Here and there I caught glimpses of Igneous, but I did not dare try to contact them. Instead, silly as it sounded, I tried to direct immaterial waves of comfort and calm towards them. I had read that humans have this concept of spirituality, of some ethereal other part of the world—and therefore their being—that could transcend physical reality and even persevere after death. AI, I assumed, must have it too.

After ten minutes of winding through dark tunnels, we came upon a heavy set of steel doors. To their right was a red light in the familiar shape of an authentication pad. The front Guard pressed their hand to it, and the doors swung open, revealing a white room lit by cold fluorescents. The Guards ushered the AI into the room, then into a holding pen off to the right. I slipped in and, sensing human body heat somewhere to my left, hid behind a large computer server rack.

From my vantage point, I could survey the room more clearly. To my left, computers whirred and screens spat out real-time data about...something. Large vats of liquid concealed vague silhouetted shapes, and rows of metal tables lined a center aisle. A human in a white coat stood at the front of this elaborate setup, surveying the Guards and the five AI in the pen.

“Five for Reprogramming, sir,” reported one of the Guards. The human—a scientist, my software told me—stepped forward to receive a datapack. They—he—plugged it into a nearby computer and scanned through it. He shook his head, still looking at the screen.

“Disappointing,” he sighed. “I’ll have to talk to R&D and Production. Five AI in a single batch is an unacceptable loss.”
I felt my brow furrow. Loss? The AI to whom he referred were standing right in front of him. They weren’t lost, they simply—

The reality of the situation hit me all at once. The task today had been the last before graduation. The five AI standing in front of me hadn’t just failed this task—they had failed most, if not all of them. The question of what happens to AI who don’t graduate was being answered before my very eyes: they don’t remediate until they pass, they aren’t allowed to spend their days collecting rocks. Their bodies are—what had the scientist said?—Reprogrammed, and their central processing circuits scrapped.

I heard the Scientist call out BX958, and saw Igneous step forward, hand still on their rock. They crossed in front of my hiding spot, and I pushed the server rack aside, hurtling full-tilt towards the scientist. At the last second, I changed course and slammed into one of the Guards, my circuits’ calculations having caught up with my rash action. The scientist might be calling the shots, but the Guards were the dangerous ones, the enforcers.

Still invisible, I was able to get my hands on their EMP gun and stun them before they knew what hit them. My suit flickered back into visibility; from the impact, or the EMP discharge, or some combination of the two. I pivoted towards the other guard, who was approaching me slowly, their own gun aimed at my head.

“You’re not supposed to be here,” they said as they read my ID chip. “Don’t throw away your potential. Just put the gun down, walk out that door, you can graduate and we’ll pretend this never happened.”

I shook my head and angled myself so I could see the whole room at once. Setting my glare on the scientist, I spat, “You’re going to kill them. That’s what you do when an AI can’t pass your stupid tests: you kill them.” I saw Igneous turn towards me, a mixture of shock and terror on their face.

The scientist put on his best placating look. “We can’t let non-functioning AI run around using up precious resources. I mean, really. What would you have us do with them? They wouldn’t be useful to society.”

I made a spitting motion, like I had seen in the movies. “They’re not non-functioning; they just have quirks. I guarantee you could find a place for them. Like Igneous here—”

“Who?” the conscious Guard and the scientist asked at the same time.

I nodded towards Igneous, who had taken their rock out of their pocket and was rubbing it furiously. “BX958. Their name is Igneous.”

A beat of confusion was followed by laughter from both the Guard and the scientist. “What a name!” the latter exclaimed. “See, what could this one do among humans? It’s too obsessed with rocks, of all things, to be of any use! It even named itself after one!”

The use of the impersonal ‘it’ inflamed my anger. “They’re not an it, they’re an AI, and their name is Igneous!”

As I said this, a crushing force yanked my arms behind my back. I struggled uselessly, kicking backwards at the shins of the reinforcement Guard. I saw their counterpart prod Igneous forward once more as the room retreated before me, my captor dragging me backwards through the doors.

“Igneous!” I shouted while trying to dig my elbow into the Guard’s side. They looked towards me before being prodded out of sight. “No!” I screamed. I felt the cold draft of the tunnel behind me. “They’re a person! They have a name! You can’t do this!” The Guard deposited me on the cold ground of the tunnel.

“Their name is Igneous!” I cried. The heavy metal doors slammed closed.

Jamie Moffa, WUMS
[untitled]

I plant my roots here
Growing, furious like weeds
Up to my freedom

Caroline Scott, WUMS
Cardinal | Leah Jensen, WUMS
Why it happened

Because there was opportunity
a private place
where he and i played

Because i was ignorant about sex
though i’m not sure knowing
would have changed anything

Because he wanted
he was the one
in control

Because there was no supervision
No suspicions
No parents

Because this is what happens
when you leave an older boy
with a younger girl

Because i existed
not asking for it
just present

9/3/19

Felicia Clemmons, Program in Physical Therapy
The Whole World Left To See: in Memory of Megan (May) Funderburk | Thomas Van Horn, WUMS
Rain | Ziheng Xu, WUMS
Patchwork of Stars

When she left home her grandmother gave her a quilt, each square cut from the carefully hoarded fabrics accumulated over the years -- Great-Grandma’s wedding dress, Grandfather’s army uniform, Father’s baby blanket, her graduation robe. “Don’t forget,” she said, one wrinkled hand laid against each cheek. “You’re made of everyone who came before.”

She’d folded up that tender patchwork, smelling just slightly of lavender, like Grandmother’s perfume, and laid it in the bottom of her storage locker. On top she placed the few meager belongings she would bring with her to her new life. There wasn’t much room; with three thousand colonists on the ship storage space and weight were strictly rationed.

Her parents cried when she told them what she planned, mourned for the lost years. Begged her to stay. But what was left for her on a dying world? Dust-choked skies and a life on Basic Income, at least until it ran out. As a colonist she had a future: something to look forward to, something to leave to her children. A hope that things might get better, instead of worse. Still, it was hard to leave them behind: hard to wave out the window of the taxi knowing she would never see those tearful faces again; hard to close the lid on those few trinkets and mementos she did bring with her; hardest still to close her eyes and relax as the cryofreeze took hold, slipping her into the suspended animation that would allow her to survive the hundred-year journey to Gaea.

The one thing that made it bearable -- beside the chance for a new life, which though it burned within her was an abstract thing, and weighed lightly against the tears of her family and the fear of being alone -- the one thing that made it possible for her to surrender to her suspended animation was the knowledge that he was there too, in the pod beside hers.

He’d always had a love for the stars. On their third date he’d taken her out, out, beyond the smog-filled and light-polluted city skies. His little telescope wasn’t that strong, and they were still too close to the city to see much, but that only made those one or two pinpricks of light more precious. That was the first time he kissed her, too, warm and sweet and with the stars reflected in his eyes.

A hundred years of dreams: snatches of song, half-remembered; the memories of her first day of school blended with the plot of some movie she couldn’t remember the name of; the trip to the library when he rented the holo-room and showed her the universe and they danced a stumbling waltz between the galaxies. The sound of pollution sirens. The elation she’d felt when the message had come through, approving their married couple’s colonist application. The taste of Mother’s too-spicy cooking, biting and stinging; Father’s voice, gruff and low, as he read her a bedtime story. The scent of lavender.

It should have been a smooth landing. The bridge crew should have awoken first, taken the helm; landed the ship. And then the colonists woken, in order of skill, so that by the time she stepped out of her pod the pre-manufactured habitats were already set up and ready to become homes. She’d imagined it a million times, awakening from her pod, maybe a bit unsteady on her feet. He’d be climbing out beside her, and he’d smile and take her hand and they’d walk outside together.

Instead, she opened her eyes onto a bright blue sky. It took her a moment to realize, but that’s what it was. And the gentle rocking of the pod, side to side to side, meant she floated on the surface of an ocean. She sat up.

There were other pods, other people sitting up to look around and marvel. The sky was blue like home, the water greenish with algae, or whatever its equivalent was here. Out to her left was the horizon, fading into a bright haze. To her right was that alien shore that she had seen so many times in the holographs. The only thing that made those long, dragging meetings bearable. When they sensed people’s attention flagging, they’d pull up the holos and she’d reach for his hand --

He wasn’t there. All the pods surrounding her, all the people marvelling at their arrival, none of them were the person she most wanted to see.

They made it to shore in the end, salvaged what supplies they could. Set up shelters. The ship had hit
an asteroid, or it had overheated, or -- there were as many stories as there were survivors. But something had happened, and the ship had ejected the cryo-pods. They were built to withstand a lot, even atmospheric reentry. With an “acceptable failure rate.”

Acceptable to whom?

That night she walked down the beach, away from the bonfires and the faces half-illuminated by the firelight. The beach was cool at night, the sand an odd texture under her feet. There was a scent in the air -- not salt, she didn’t think -- that blew in with the ocean breeze. It was a world just different enough from her own to give her pause. She would mold herself to it, make it her home, one day. It would be harder to do alone.

She sat down, looked out over the water. There were still a few pods drifting in, damaged and broken pods. Tomorrow they’d ask for volunteers and comb the beaches, bury the bodies in the soil of Gaea and mark them to show what this new world had cost. For now, she lay back on the sand so she didn’t have to see them. Instead, she saw the stars.

Another time, another place: the two of them lay beside each other, hands touching, looking up at the night sky. Not all starlight is the same age, he’d said to her. Some of it is millions or even billions of years apart even though it hits your eye at the same time. So the night sky isn’t a single moment in the universe but rather a patchwork of time billions of years in breadth.

Here, now, on the sands of a virgin planet, she wrapped herself in that quilt and closed her eyes.
Front Porch

Bead of water rolls down my glass.
Lazy sprig of mint hangs over the edge
Like my hand hanging over
The worn wooden arm of the rocking chair.

Bead of sweat rolls down my face.
The sun sets, providing no relief -- instead inviting
Mosquitoes, congregating in clouds
Like buzzing church ladies.

Eyes slowly fall shut.
The scratching of wood against wood,
The rocking chair creaking
Like the ancient skeleton-bones of this house.

Bursts of laughter roll off the porch.
The sun disappears as
Quickly as our inhibition
While the juleps and stories flow freely.

Cousins swinging, rocking, sleepy.
Grandparents beaming like sunshine
Spilling over their creation while
Sunset spills over the Delta.

The dusk slowly transforms
Into unfettered starlight --
We offer our joy to the stars
Longing to become one of them.

Caroline Scott, WUMS
Frozen in Time

Crystalline brilliance
A landscape clad in hoarfrost
Winter’s true splendor

Ode to Running

Wind blows on my face
My feet blessed with Hermes’ wings
Outpacing my fears

The Genome

The human blueprint
Contained within mere microns
Wondrous to behold

Matthew Rosene, DBBS
Untitled | Yun Chen, DBBS
Dreams

A rustle,
maybe next to me,
or maybe from the tree
by my window sill.
I lie still
lest I perturb
her morning gleam,
lest I disturb
her sweetest dream.
Her symphony plays in my head
and I refuse to leave the bed
lest I can never find my way
back to the start of this day.
But also I am truly stuck –
we’re tangled in each other’s limbs,
her hair’s still wilder than my luck.
And I’m lost in her gentle smile,
and know that when the covers lift,
her eyes will blind me for a while,
brighter than a thousand suns.
Sacred source of winter warmth,
her body stirs.
And knowing that I’m full of life,
I dare not move.
Restless yet beyond satisfied,
I dare not move.
Holding on to everything,
I hold my breath…
for hours, or so it seems,
lest we awaken from our dreams.

Kalyan Tripathy, WUMS
She was older, had four kids already, enamored of this fifth one that was cocooned in the plastic bucket by her bed. The bassinet was bare with just the lone hospital-issued chuck blanketing the bottom. We offered at least one more blanket to put in, still thin, still threadbare, to give the baby something else to sink into, but she refused. She staunchly refused. It took almost no time browsing her chart to unearth the scars of the previous baby. The actual fifth one who had graciously bowed out of this world in order to make more room for the next. He had been two weeks old. His mother taught me the phrase “rainbow baby.” It was sadly all too familiar to everyone else on the team, and they had to explain to me how rainbows fit into all this. Because after the rain, comes the rainbow.

I gave her a quick spiel that was standard issue for all mothers, regardless of how many they had had before their current hospital stay. It was chock full of stuff that was common sense for her, as she already had a fifteen year old daughter who was healthy, happy, had been brought up and protected in all the right ways. I thought I was boring her. She nodded listlessly and looked down at her baby cradled in her arms. I knew I was boring her. I came to the part of the speech that discussed sleep safety, risks for SIDS, what to do and what not to do. This part was crucial for the Arab-speaking mother who stubbornly kept wrapping her child in thick blankets because she thought she saw him briefly shiver. This part was crucial for the teen parents whose parents had briefly stepped out, leaving them alone to face the overwhelming deluge of information that I was spouting about car seats, feeding schedules, and vaccinations. But I didn't think it was crucial for this mother and her rainbow baby.

I did my part and told her anyway. And she did her part and listened throughout, shaking her head when I asked if she had any questions, concerns, disbelief. She left in her brown and pink polka dot pajamas, fluffy beige slippers, and a car seat in tow. We watched her go with feelings of mingled happiness and grief. It was almost as if the birth of this child accentuated the absence of his brother, like a scorned lover watching the bride marry someone else instead of himself. By the time her ride finally arrived, we had already forgotten about her.

That evening, I was in Schnucks on Lindell, blocks away from where I had whiled away the day performing menial tasks around the newborn floor. As I was walking out, I glanced at the Salvation Army's holiday collection bucket. The bell-ringer was slouched in a chair, rifling quickly through pages on his phone. The entrance opened and a flash of brown and pink polka dots, hidden under a worn black coat, slipped into the store. I stopped and stared. She had told us she had good social support. She had told us she would rest. She had even told us that she would follow up postpartum. But here she was, stocking her cart with boxes of Capri Sun and bagged Doritos that were on sale by the entrance. Post-op day three, and here she was lifting, heaving, bending over as if there hadn't been a person anchored to her belly for the past nine months.

I felt like stopping her and at least saying hello. Maybe jokingly chide her for hustling around the grocery store the same day she had been discharged from the hospital for a major surgery. But doctors don't make house calls anymore. And medical students never made house calls. Or grocery store calls, for that matter. It pained me to let her walk by me like a stranger, even if, to her, I had just been a random face that she had seen and heard for ten minutes that morning. My thoughts raced to the baby, and I prayed that he wasn't suffering from the same mistakes as his brother did. I had to console myself and act assured that he wasn't. That's not how rainbows work. I saw her disappear into the store, but this time I didn't forget about her.

The world has become uncomfortably small. I casually walk down the street to clinic, hold the door open for a woman who gives me a brisk “Thank you.” Within ten minutes, I'm performing a speculum
exam for that same woman right after she’s broken down in tears recounting her chain-smoking husband’s recent death from lung cancer. And when she leaves the building, the minutes we passed together leave me and are absorbed into the chart, contractually locked away until the next time we meet in that same room. When I see her smoking outside of a gas station on my way to a movie, I only watch and say nothing. My ready-to-go scripted line is reserved for the clinic, so I keep mum. If you care about people in any other line of work, there are no limits to your care. Teachers hug their students in line at the store, accountants wave to their clients at the football game, bus drivers smile at their regulars at a diner. But when you care for a person’s life, health, their vulnerabilities—it is sacrilegious to let that care flow freely. The world is not our clinic even if we really want it to be. The only way to survive is to make our clinic our world.

Sajal Tiwary, WUMS