



THE

SPONGE

Vol. 6 Issue 1 - Fall
2015

The World in Year 3000



Letter from the Editors

The Sponge is a student publication that seeks to provide science, mathematics, and engineering students with a platform to explore and publish their artistic pursuits. Each semester we look to the scientific community at the University of Utah to come forward and share their submissions. We accept a variety of submission formats: poetry, shorts stories, opinion pieces, photography, schematics, cartoons, and other science-related or creative entries. This semester, our theme is the changes we might see in society due to advancements in science. We hope you enjoy our selection inspired by our staffs' vision of the future!

We are looking for new staff writers and editors. Join The Sponge today by emailing us at thespongeutah@gmail.com or visit our website at <http://thesponge.eng.utah.edu/>.

Keep your eyes open for our next submission deadline coming up this Spring 2016 and thank you to everyone who contributed to this edition.

Cover photo by Professor Butterfield of the University of Utah Department of Chemical Engineering

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Bright Lights

By Michael Guo

Biomedical Engineering

The future is bright
Full of shining light
The future is full of technology
Brimming with enthusiasts of astrology
And there's no more to a person
Than a little bit of coercion
There's some war and more fights
But there are still a great deal of lights
All around! Hustle and Bustle!
Never any time to get into a tussle!
So many diversions and grand video games.
But look at the time! There's no time for names.
Yes, the future is bright
And full of shining lights.
Technology has shouldered our burden.
It's even closed our curtains!
And now we're comfy and alone
Underneath this cool, dark, stone.
Welcome to the year three thousand
With a blinding light that cannot be canned.

Untitled

By Jeff Jorgensen

Psychology

“The American Empire was a flash in the pan”
My history professor began,
“The most influential empire in history,
That gave us plains, trains, and Listerine.
But despite their many advances
They met their demise from incompetent finances.”



Photo by Tony Butterfield

Something Better

By Ally Roundy and Juan Altuna
Psychology and Biology

When someone is throwing their plastic bottle away do they stop to think: do we care about the earth? What would the earth say if it could talk? This is what we were thinking about when we wrote the song “something better.”

Disguised as a love song, this song aims to personify the earth talking to its inhabitants. As we use up resources and pollute the earth, this is what we imagine it would say. A lot of people don't realize that we are making irreversible changes to the environment; there are even some who deny the science of it. For example, there are some congressmen who undermine our impact on the environment and deny changes to the earth, like global warming. With these opinions and the changes going on in the world it makes you wonder how much different it would be in the year 3000. Despite the bad, there are still people striving to make a greener and better future. It goes to show there has to be something better for us.

You can listen to the song by scanning the code below with your phone or you can go to www.soundcloud.com/allyjuandro



Photo by Steve Stafsholt

Moving Forward
By Christine Henry
Biomedical Engineering



What you see here is the result of bacteria swimming through motility agar. The research conducted in the Hughes lab in the Biology department involves the study of the flagellar system in Salmonella. This picture is one of the motility experiments I performed for my research project. How big the circle is represents how far the bacteria swim and thus informs us of the functionality of the bacterial motor system. Like these bacteria, maybe by the year 3000 humans will have increased their circle of influence in the universe.

The Jonas Brothers
By Micheal Young
Biomedical Engineering

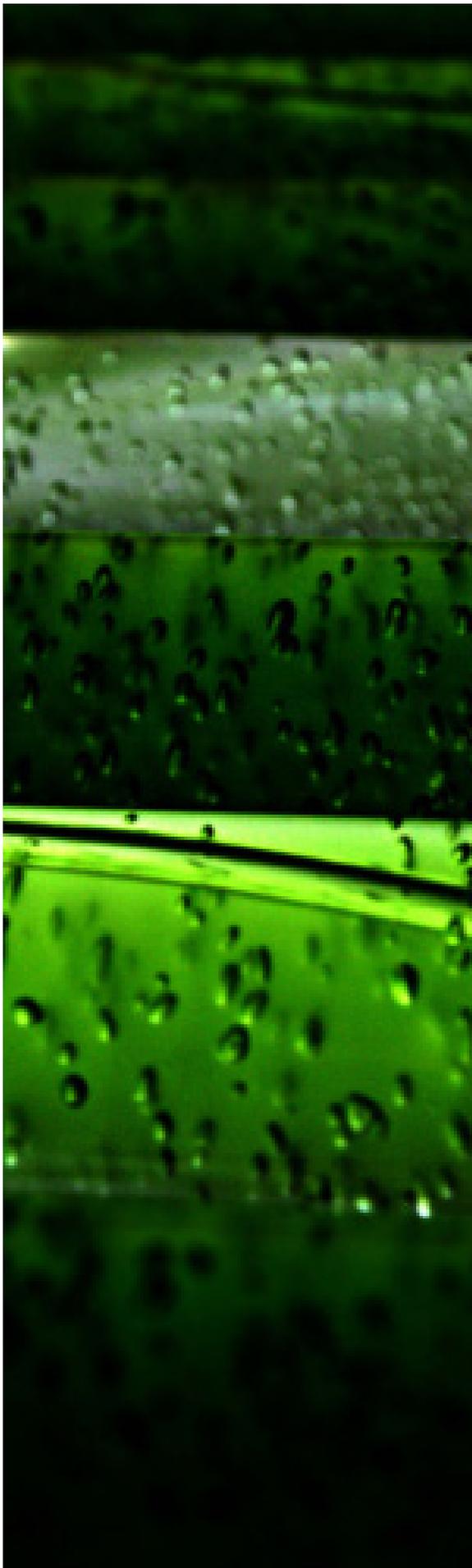
He said
I've been to the year 3000
Not much has changed, but they live underwa-
ter
And your great-great-great-granddaughter
is doing fine
doing fine...

But that wasn't the entire story. Peter returned from the future, shocked and burdened by all that he had seen. How had it all gone so wrong? When the youthful Jonas brothers came running out to the backyard, he looked into their wide eyes: so young, so full of hope, and he couldn't bear to tell them the truth. But if he had, it would have sounded something like this...

He said
I've been to the year 3000
Everyone is dead— their bodies entombed by
the acidified oceans
And your great-great-great granddaughter
was murdered in cold blood
by your great-great-great-great granddaughter
I'm so sorry



Photo by Tony Butterfield



Deus Ex Machina

By Anonymous

Initializing judicial protocols....

Subject: Female

Age: 26

Identification: 150-3241-982341

Class: D521

Occupation: Human Resource Development

Charges: Indictment for forced removal of coercion neural implant, threat to global order

Status: Aberrant

....

....

Beginning criminal proceedings: "Defendant, you are charged with the forced removal of your coercion neural implant. Subsequently, defendant is also charged with threatening the global order. You are not permitted legal counsel. A jury of 10 peers will ascertain your innocence. Defendant may begin their plea."

....

....

"My name is Sophia Goodwin. This trial isn't fair! Like, I mean... everyone in the jury still have coercion neural implants... you are all biased against me!"

....

Calculating Response....

"Complaint denied. Coercion neural implants eliminate irrelevant thoughts and enhance logical reasoning. Impartiality is not a concern. What is your next case?"

....

....

"...Then how am I a threat to global order??"

....

....

Calculating Response...

"By removing your CNI, your mind has become unfiltered. You possess emotion, attachments, desires, free will. Non-relevant thoughts are the root cause of conflict that has plagued humanity for thousands of years. The CNIs have created an everlasting world peace. The CNIs have stopped the pollution of Earth. You are an aberrant who threatens that very order."

....

....

"I... wanted to be free. Free to think... what I want.... Like, to feel, and stuff.... To be human! Is that a crime?"

....

Calculating Response....

"Removal of your CNI also removed your regulator of your follicle-stimulating hormone levels. Your objective was the continuation of the human species. Your 'freedom' has made you abandon your purpose for existing. You have abandoned your destiny. You have become obsolete."

.....
.....
.....

"Humans are not things... like, we aren't like a pair of shoes... to be used and... and... thrown away! We don't fit around someone's foot. If all of us have this 'destiny' to begin with, why are we not born with CNIs?!"

.....

Calculating Response....

Error: Amygdala signal obstruction...

Recalculating Response...

Error: Amygdala signal obstruction....

Overriding signal interference, resetting organic signal dampener....

Verbalizing Programmed Response: "Defendant is charged with forced removal of the coercion neural implant and threat to global order. The jury will now vote."

.....

Calculating Jury Response...

Jury Response: 10-0

Verdict: Defendant, Guilty.

Sentence: Disposal.

.....

"Defendant is found guilty. Per penal code 1592, sentence is disposal, to be carried out immediately. Does the defendant have any last words?"

.....
.....
.....

"This feeling... it must be fear... dread... Is this what

people felt before CNIs? W-what a terrible feeling... My hands... are shaking... why...?"

.....

Calculating Response....

Error: Amygdala signal obstruction...

Recalculating Response....

"Without your CNI, your brain is instinctively responding to your imminent demise. That irrational response is your malfunction."

.....
.....

"Then...to be able to feel this fe-fear... I know I am free...! I am free! This feeling... if dread is fear, then this must be happiness? Hope? If only you could feel anything... Maybe then... you might even think that we could have solved the world's problems... without the CNIs..."

.....
.....

Calculating Response....

Error: Amygdala signal obstruction...

Recalculating Response....

Error: Amygdala signal obstruction...

Recalculating Resp---



Photo by Tony Butterfield

The Underwater World

By Jeff Crosby
English Teaching

The year was 3015, the future had arrived, though it may not be the one that people had envisioned. The Earth was now all but underwater, a result of global warming, with each continent residing inside glass domes with advanced technology for traveling and fighting in the depths. Hold on, just what would there be to combat?

Imagine beings that have the appearance of many different marine life creatures such as sharks, whales, dolphins, and stingrays but they are also part human. These fish people were a result of scientific experiments aimed at creating a way to live underwater. Slowly, over time, this established many different races and even kingdoms of hybrid creatures, that some saw as a threat to humanity and feared these new creatures would find a way to dominate and enslave all humankind. There were, however, some that did not agree with this dictatorial point-of-view in which these new creatures took over; disagreement divided up the dissenters into separate fish clans. The sides that agreed with the humans formed a union between fish and man that took a millennium and multiple takeover attempts to form.

During those years, there was additional experimentation with other animal species, such as, crocodiles, alligators, and frogs, which created other new races. Soon these new test subjects were released into the oceans and they chose sides as well. After all this time, people worried if humans would still exist or if they would become fish bait and slaves to the monster-like hybrids?

Traveling all the way to the Atlantic Ocean, there lays a ruined stone city filled with hybrid Sharkmen, whose leader was eager to attack the one thing they despised the most: HUMANS! "My fellow Sharkmen," said Sharkon, "the time has come for us to attack the humans." His announcement was followed by an uproar that was quickly silenced as he continued, "while we may be few in number, there are others willing to rally to our cause, go find them, spread the word." Soon hundreds of Sharkmen were off to spread the word and prepare for the attack, unbeknownst to them a human passerby had overheard their

plans. "This is unbelievable," said the human, Erica, as she went off to warn U.S. President Serena of what she had heard. After Erica explained the situation, Serena convened with the other continental leaders where they decided that they must fight back.

The next day, with reinforcements from allied hybrid tribes, Erica was prepared to fight. She glanced about waiting for the attack when she noticed him. She quickly introduced herself to this attractive man, Eric, but was interrupted by his announcement, "They're coming!" Soon, laser swords, arrows, and spears collided with claws, tentacles, teeth, and stingers. Both sides holding their positions. Eric and Erica stood side by side cutting down enemies. It soon became evident that the enemies' main attack strategy consisted of using Rockmen, who launched large boulders at the domes, to wreck destruction on the humans and their safehold. The humans fought back as Sand People stopped the onslaught of boulders. Noticing that their attack strategy was failing, the enemy leader order a retreat.

"Yes! We are victorious," said Eric proudly. Erica was not so sure, "There's still more to come" she said, "as long as we stick together and never give up, we can win." Eric turned to Erica and embraced her in his arms.

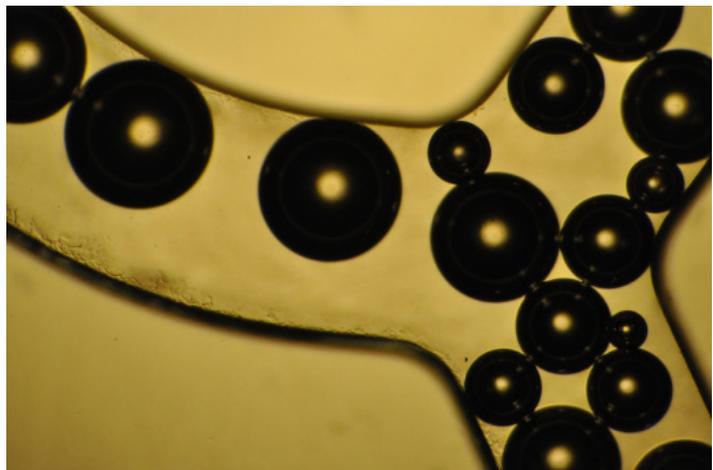


Photo by Tony Butterfield

Introduction to The Lowland

By Jack Veverka

Biomedical Engineering

Dear Friend,

Here you walk on a ground that steals rays of a depleted sun to power myriad machines of man's devising. Set upon the flooded face of a biome once brimming with species now lost to the ages, the solar plated pavement stretches on for miles. Above, behemoth towers composed of synthetic sludge pierce the dim sky. The Lowland is forsaken.

All but the dredges of society reside up in a paradise unknown, unfathomable to the scoundrels below. The faint hum of flying vessels rushing about the city in the sky echoes off the unkempt bases of the buildings that form an unknown paradigm of un-navigable alleys that twist their way to misshapen squares. The paneled street leaks back the day's dry heat. You can feel it gnawing at your skin. Amidst the corridors laden with soot, shanty huts sulk on their rotting foundations. Warrens shared by the living and the dead give way to larger encampments of the damned. Immersed in a grey-green fog lies a massive motorway where jalopy vehicles scuttle by, engines coughing and whining to create an aggregate polyphony of deafening sound. Cross here. Beyond lies a great open space between the borders of one sky city and another. Here rests a nameless, dark settlement. On the heavily trodden walkway, small structures rent with ruin litter the ground, decaying with the slow cataclysm of neglect, purposes forgot. Along this path leading to the decrepit city's corrugated steel barriers run frayed power lines atop rust worn posts, many leaning about to topple over. A dull yellow glow from the city spreads across the flat land in the night, illuminating the whole space like a lighthouse casting out its beacon over a vast, misty sea. The skyline is jagged with disordered buildings whose chimneys spout a great heap of smoke, pillowing into the sky. Before the entrance stretches a rickety bridge over a colossal trench that reaches down leagues to earth's molten mantle, the product of a collapsed fault centuries past. Atop the cragged walls stand brutish men armed with

makeshift rifles, guarding against bands of the violent insane. A great vault door marks the only passage in. You have come to a world within the world. A place as unremarked and dissociate and anonymous as any uncharted distant planet of the dark beyond. An alienated wasteland whose only recourse is to deliver the dying sun's energy to the prosperous world above. But something stirs within this putrid place. The vault door is shut, but lo something emits an ineffable aura. Can you guess his form? Is he some visionary being, transcended from a distant dimension unbeknownst to man? Or a recluse shuffling inconspicuously betwixt his fellow miscreants? How you can find him my dear friend I cannot tell, but it is paramount you uncover his trail. Worse times lie ahead.

Make haste,
Your friend



Photo by Jack Veverka

The Tumultuous Times of a Transcription Factor

By Ben Berger

Biochemistry

One is enticed
to imagine
how nine hundred eighty-five years of refinement
upon refinement,
hypotheses rejected – and accepted –
and “the cutting edge”
honed ever sharper
must further our sensing still
in The Year 3000.

Perhaps in knowing what was unknowable,
detecting what was undetectable,
seeing what was un-seeable;
a story could be revealed.
Intellect and instrumentation enabling
us to finally comprehend
as we are told the story
of an unknown transcription factor:

“Mine is an existence
governed – and characterized – by the
laws of thermodynamics, kinetics, and forces: quanta;
predicated on probability.
My world of milli-, micro-, nano-, pico-, phento-,
immensely intricate and
confoundingly complex,
writhes with incessant, innumerable interactions.

My ornate, functional coils,
stout, supporting sheets,
domineering, discrete domains,
and eminent, familiar motifs,
denote an exquisite predetermination.
I am a design, a function.

Tumbling, careening, sailing
about my primordial sea of localized chaos,
I collide-repel-collide-expel-
knocked about
in sporadic, senseless collisions.
I jilt
myriad suitors,
dissatisfied,
until
a fortuitous, fruitful encounter: binding.

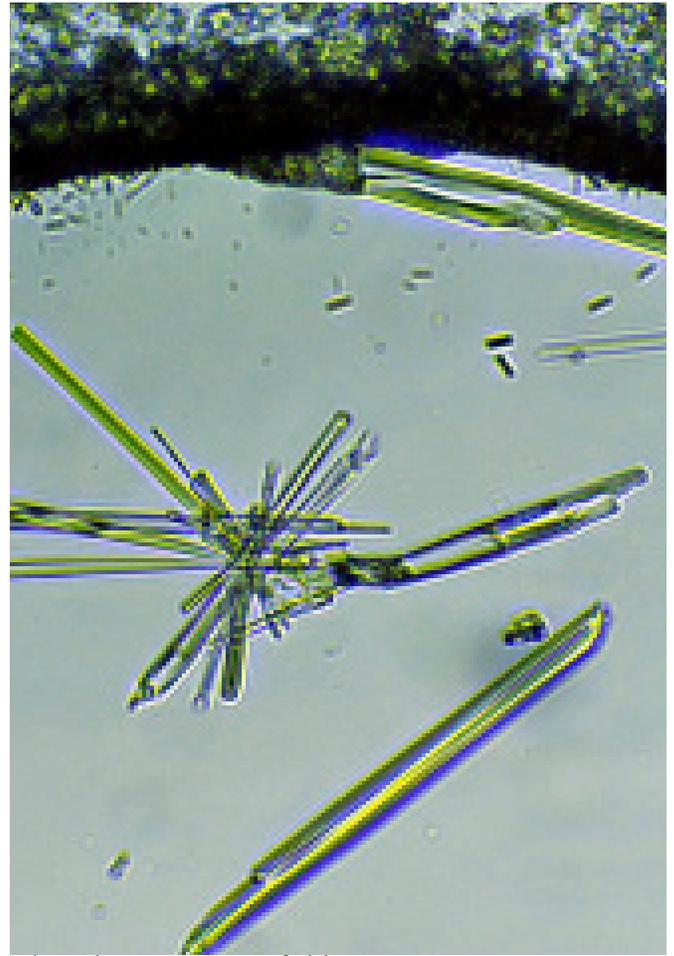


Photo by Tony Butterfield

Inducing a fit, I glom onto
my twisting target,
docked by particular, preordained pairings
specifically and selectively
wrought by the pressures of deep time.

Resisting dissociation, I hold fast
while my recruits go about their befuddling business
of reshaping and remolding
the helix on which I am perched.
The feverish, frenzied whirring
of the polymerases ceases as they lose their holds,
and tumble away into obscurity. .
I tumble, too, leaving only Brownian motion
and genes silenced.”

Cloudy Days
By Lane Mulvey
Biology

Sometimes one must will the weight of the clouds to stay aloft for there are some that would like to see them fall and fall they may like nose-diving doves white plumes of beauty turned kamikaze pilots dipping from their realm of unreality into the harshness of our reality, clouds that floated with our dreams, hopes, spirits, clouds that represented our happiest and saddest days, clouds that swam amongst the sunlight and amidst the shaking of the stars, clouds that looked down at us, us in love, us in war, us in pain, us in beauty, us in the rain as the clouds they cry, cry because they see a world that forgets to look up at them, forgets to breathe, forgets that one's eyes can become clouded with unimportant matters, forgets that the clouds are slow beasts and that if you are moving too fast you can't grasp their beauty, forgets that when it rains the clouds they cry, so focused are we in our own tears in our own pain that we do not see that the world is bigger than us, what reason does that give clouds to stay afloat for they float for us like unreachable mountains, they float for us like endless seas, they float for us as infinite art forms, they float for us on boundless breeze, without clouds we lose connection to the world around us so self-absorbed are we, without the clouds we forget that the world is living, that seasons change, that we must stand up for things bigger than us, so today stop dreading and instead start dreaming, today start looking, today begin believing for when you see the snow falling tiny fragments of white, think about the clouds as they crumble one last message flashed in front of ignorant eyes, and take a moment to stop, breathe, and turn your gaze up to the skies.

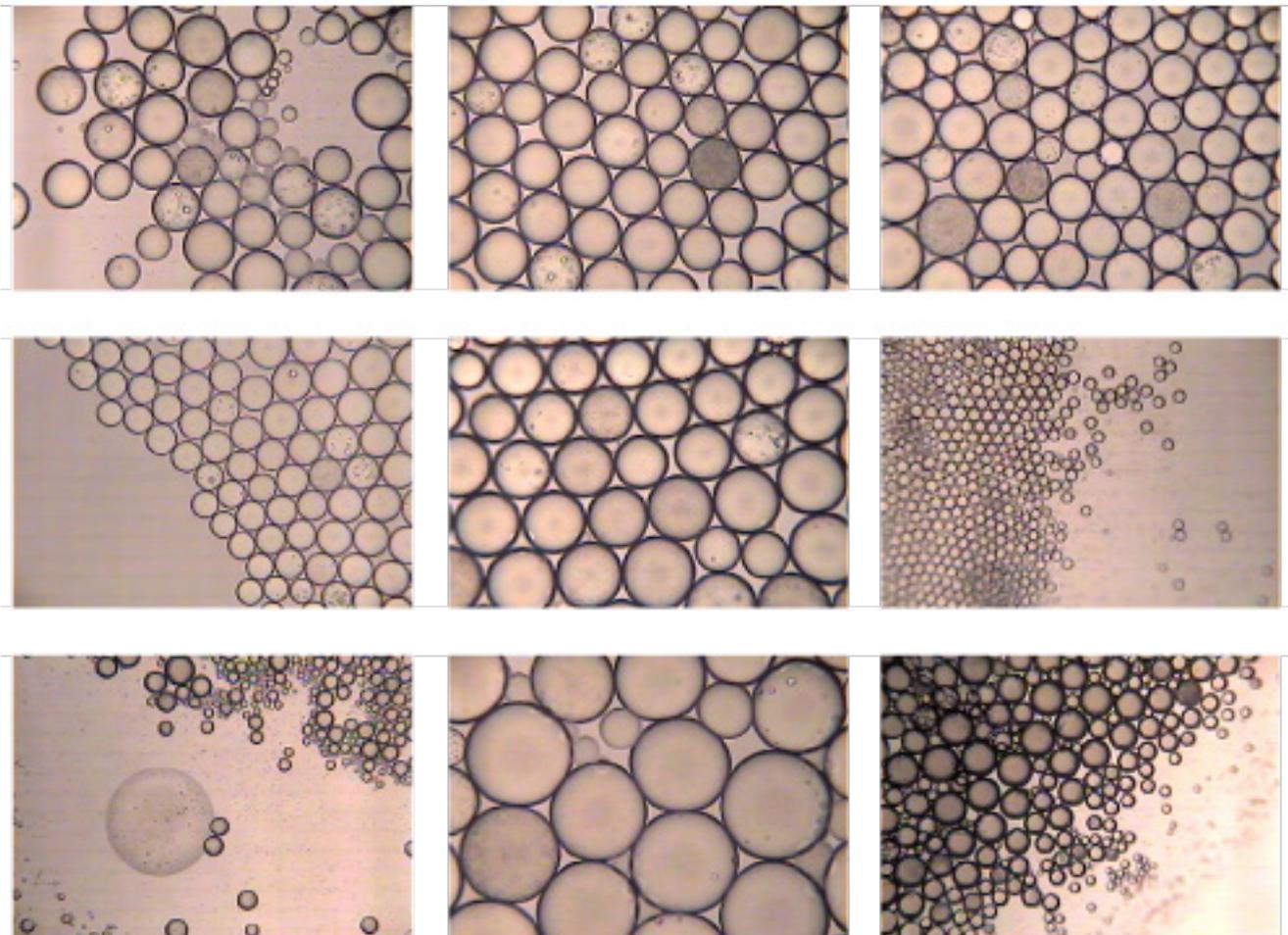


Photo by Tony Butterfield



For Future Generations

By Tricia Foster
English

Lay out my thoughts like collectibles—
inventoried in a catalog
where a new dimension
creates the articulation
to comprehend
consciousness and id.
Pages riddled with the names
of craftsmen whose hands labored
to mold the structure
and paths
in my mind. Incidentals
detailing the damage— breaks
from being mishandled, cracks
from being neglected.

Collect my imaginations,
my reactions,
my wanderings—rich with historical detail.
Place them on the mantle
and admire their blurred edges
and dubious hues.

Try to gather them
together
within the same space, assemble them
into some semblance
of a message.
Pass them down to future generations
with a warning
of caution, of care.