

ALETHEIA

A JOURNAL OF CHRISTIAN THOUGHT

CULTURAL SANTIFICATION

... Christianity changes cultures by stripping the bad, purifying the good, and adding the new. This three-part process is what I call cultural sanctification.”

CITRA

... Oh, it means picture, image, Artist’s impression. It’s a beautiful name.

UTILITY OF THE IMPRACTICAL

... The incarnation itself – that God became human in and associates with those pushed to the edges of society – not only acknowledges those society has actively neglected but values them.

INTERSECTIONS

Winter 2020

Volume IV

Issue I

An aerial photograph of a vast, teal-colored ocean. A large wave is breaking from the right side of the frame, creating a thick, white foam that cascades over a dark, jagged rock in the lower right quadrant. The water's surface is textured with small ripples and waves, and the overall color palette is dominated by various shades of green and blue, with the white of the surf providing a sharp contrast.

MISSION STATEMENT:

Aletheia seeks to explore the implications of Christian thought
within the interdisciplinary space of Cal Poly.

DEAR READERS

Our lives are full of intersections. As students, life in our classes and clubs is intimately connected with our lives off-campus, and overlaps with those of our classmates, friends, families, and professors. Our work, rest, and leisure are rarely distinct, but instead merge into a productive chaos. Many of us are asking whether our values and work will share a common thread. Parts of our own identities – cultural, religious, and academic – all intersect with themselves on this campus and can often fight for our time.

Popular notions of religion relegate spirituality into its own corner, arguing that reason and faith cannot coexist. One could say that religion isn't bad, in and of itself, but has no relevance in academia, science, or politics. At Aletheia, we instead believe that religion is relevant in every intersection in our life, and that Jesus' incarnation and resurrection is significant in every corner of our identities. We believe that God is found in everything – in biology, philosophy, literature, astrophysics, and art, in our classes, clubs, activism, and pastimes. This notion is not new. From C.S. Lewis and J.R.R. Tolkien, to St. Augustine and Aquinas, to Martin Luther King Jr. and Gustavo Gutiérrez, Christians have wrestled not only with questions of who God is, but also with what that means in the context of their work and society around them. We hope to continue this work, insisting that reason and faith can not only coexist, but must work together.

In this issue, the fourth of *aletheia* we explore the implications of the Christian gospel at some of these intersections – of genetics and human dignity, or culture and religion, for example. This issue also includes our first short story, as well as poetry and featured student photography. Whatever you personally believe about God, religion, spirituality, or Christianity, we believe that ἀληθεια – the Greek word describing the uncovering of truth – matters to all of us and is integral to the health of the university. That is why this journal exists. We are not here to preach at you, argue, or claim we have all the answers. Instead, we hope to be a place for started conversations about questions that matter. Whatever your background, we hope you join us.



Tim Rettberg
Editor-in-Chief, 2019-2020



Not pictured: Robseth Taas

Aletheia is a Christian thought journal which strives to write about and discuss the way Christianity interacts with every aspect of our lives, specifically in the context of Cal Poly. We are a part of the Augustine Collective, a group of journals on college campuses primarily across the United States, which strives to do the same.

Contribute!

If you are interested in submitting articles, short stories, poetry, photography, or art, or want to join the Aletheia team, email us at aletheia.augustinecollective@gmail.com. Aletheia is a team of students at Cal Poly. Everything we do – from writing, editing and design, to social media, outreach and business – is done by students. All majors are welcome, whether you have writing experience or not.

Support Us!

Aletheia receives some funding from Cal Poly as an ASI recognized student organization, but to fully operate we rely on the support of individuals and partner organizations.

To donate or find other ways to support Aletheia, please contact us!

Email | aletheia.augustinecollective@gmail.com

Website | aletheiaacademic.wixsite.com/aletheia

Editor-in-Chief

Tim Rettberg

Managing Editor

Emma Benis

Business Manager

David Choy

Community Lead

Nick Chaney

Design & Layout

Shea Brooking

Namji Kim

Staff Writers

Margot Chesnut

Robbie Taas

Photography &

Art Credits

Matthew Crockett |

Cover, 2, 7

Everett Johnson | 8, 12-13

Bryan Num | 10-11, 15

Special Acknowledgements

Augustine Collective

Dr. Todd Long

Dr. Ben Richert

Michael Winn

Dr. Paul Marchbanks

Cru Central Coast

The Veritas Forum

Front Porch

GraceSLO

Newman Catholic Center

Journey Christian Fellowship

Editors Emeriti

Caleb Gotthardt | 15-16

Anelise Powers | 15-16

Lydia Anderson | 16-17

Lucas Dodd | 17-18

Marta Galambos | 18-19

Maggie Chang | 15,

Back

Grant Lee | 15

Carly Lamera,

Namji Kim, Kristen

Hwang | 19

Celeste

Kiatkwankul, Carly

Lamera, Kristen

Hwang | 20

Otto Fehger | 22

Alex Yoo | 25-26

Brett Richie [public domain] | 16

The opinions expressed in the articles in Aletheia are those of the author(s), and do not necessarily reflect the views of the journal, its editors, or California Polytechnic State University, San Luis Obispo.

CONTENTS

06

GRACE
REED HOOKE

08

CULTURAL SANTIFICATION
NATE NYBERG

12

**GENE EDITING:
HUMAN DIGNITY AND GENOMIC INTGRITY**
KENSIE SPEED

15

FEATURED PHOTOGRAPHERS
GRANT LEE, MAGGIE CHAN, BRYAN NUM

16

UTILITY OF THE IMPRACTICAL
TIM RETTBERG

18

CITRA
ROBSETH TAAS

22

GOD IS DEAD
NICK CHANEY

GRACE

Grace
is a hand
extended to all

A way up
and out of the pit
that we have dug
for ourselves

We have all
fallen and felt
the ground hard beneath
Our crushed spirit
And pride

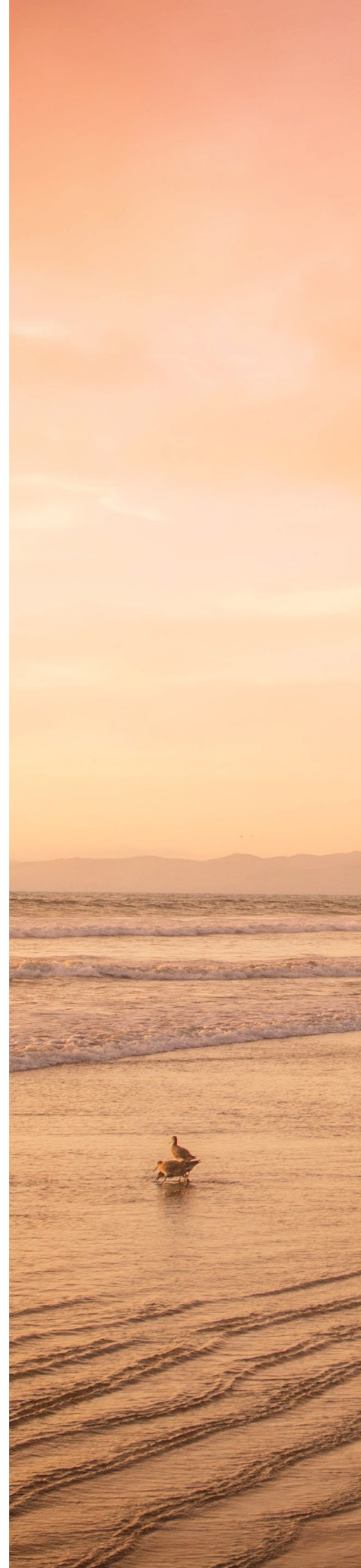
And so we know
for the world
to truly be
a better place

This utopia
we crave

For all
to be loved
and known

This hand
must be
our own

Reed Hooke is a recent graduate of Cal Poly's civil engineering program from Fresno, California. She is interested in travel, geology, and music. In her free time she enjoys reading and spending time with friends in coffee shops.





CULTURAL SANCTIFICATION

BY NATE NYBERG



A common adage suggests that if someone truly loves another person, they will not try to change that person. But anyone who has been in a relationship knows that this isn't true at all. I know this firsthand. My girlfriend insists that I stop slouching, stop wearing clothes with holes in them, and stop yelling at that idiot in front of me who absolutely cannot drive, among other things. Yet she doesn't want me to stop being Nate. On the contrary, she sees her proposed improvements not as replacing my identity, but enhancing it. She wants to bring out the best and truest me by taking away my bad habits and adding new ones because she cares for the Nate already present.

Rome was also loved. Entire legions and cities were dedicated to her glory, but for all her prosperity, she was completely capable of great acts of evil, both on an imperial and individual scale. Infanticide was

commonplace, and conquest without mercy was the norm, showing little sign of changing until the spread of Christianity.

The Christian faith works like a loving, but truthful, spouse in the life of a Christian, of Christian communities, and the cultures in their midst. In the same way a loved one changes their beloved so that their best shines forth, so Christianity changes cultures by stripping the bad, purifying the good, and adding the new. This three-part process is what I call cultural sanctification.

Cultural sanctification begins with pruning dead or death-bringing traditions that cannot exist within the framework of Christian faith. This is the portion of Christianity that is seen as the most intolerant. After all, coexistence is generally a good indicator of tolerance. But while tolerance is something of value, it is not the supreme value.

Our society today does not tolerate dirty food or water, trusting that the food we produce is clean. When this trust is violated, entire companies can go under, with responsible parties facing criminal charges. In the same way, some societal practices bring death and cannot exist alongside practices that give life.

In addition to pruning dead traditions, cultural sanctification ideally preserves the distinctive character of the culture in question. Every culture, even within a single nation, retains some aspects of its pre-Christian character. A quick example of this would be the contrast between black and white churches in America. While church leaders lament their members' tendency to self-segregate, it does provide an interesting window into the how the groups, as products of different cultures, sing to God. Black churches are famous for Gospel music, complete with strong vocals and dancing choirs. After all, worship of God is supposed to be an exuberant celebration. On the other hand, some white churches, especially denominations with old traditions, are more stoic in their worship. They worship God with simple harmonies that reflect order and peace in His presence. Neither of these styles is more valuable than the other, and each reflects a character preserved in the Christian faith not shared by every other culture. This preservation of character does, however, run the risk of preserving practices that produce death. So how do we tell the difference? Practices that bring men and women closer to the portrait of Christ painted in the Gospels in the Bible will bring them life. If the practices do not accomplish this, they will begin to bring death. Over time, Christianity resonates with the admirable characters and qualities of a culture, redirecting them, rather than disposing them as unredeemable, just like the people that participate in this faith.

Lastly cultures need new traditions, habits and perspectives. After all, if cultures possessed every quality, every feature necessary for prosperity and goodness, they would already be perfect. And who can claim that about their culture? People love their families, nation, and culture not because they are perfect, but simply because they are theirs, and that is reason enough. But in order to be more complete and life-giving, the missing elements must be grafted in. Like the first part, this runs the risk of replacement. After all, it is easier to replace a sick man than to heal him, and surgery can be fraught with deadly mistakes. But it is necessary to save a culture and the distinctiveness that it carries. Just as no one is exactly like Christ, so no culture is perfect. Replacing one imperfect culture with another imperfect culture does not bring either culture into Christ-like completeness. Only sanctification will do that.

Christianity brings this three-part sanctification of pruning, cleansing, and grafting to every culture it encounters. This transformation is apparent in the history of one well-documented culture, that of the Greco-Roman world where the Christian faith first spread. For all of its accomplishments, the Roman Empire had countless practices and traditions worthy of criticism and disdain. The foremost crime of the Romans was arguably not a crime exclusive to the Empire or Emperors, but common to the Roman people in general. That crime is infanticide, which is a sterilized word for a revolting crime. It might surprise readers that this was not considered a crime in the first century, and in fact, was

commonplace. For example, a letter from the year 1 B.C. from a Roman father to a Roman mother instructs her what to do depending on the sex of the child.

"I beg and beseech of you to take care of the little child, and as soon as we receive wages I will send them to you. If-good luck to you!-you bear offspring, if it is a male, let it live; if it is a female, expose it. You told Aphrodisias, 'Do not forget me.' How can I forget you? I beg you therefore not to worry." [1]

This was not a ritualized practice of human sacrifice to gods in temples as in Mesoamerican cultures, but it was infanticide all the same. In Greece centuries earlier, even Aristotle thought infanticide was an acceptable practice to prevent congenital defects or having too many children. In his book *Politics* (Book 7 Part 16) he writes, "As to the exposure of children, let there be a law that no deformed child shall live. However, let no child be exposed because of excess population, but when couples have too many children, let abortions be procured before sense and life have begun". [2]

It was not until the fourth century that the practice was outlawed in the Roman Empire. But Christians did not wait for this law to pass. Augustine, a Christian bishop, wrote a letter to Boniface and said,

[1] "The Oxyrhynchus Papyri : Grenfell, Bernard P. (Bernard Pyne), 1869-1926 : Free Download, Borrow, and Streaming." Internet Archive. London : Egypt Exploration Fund, January 1, 1898. Papyri #744

[2] Radbill, Samuel X.. (1974). "A history of child abuse and infanticide". In Steinmetz, Suzanne K. and Murray A. Straus. *Violence in the Family*. NY: Dodd, 173-179.

“ ...

CHRISTIANITY CHANGES CULTURES BY STRIPPING THE BAD, PURIFYING THE GOOD, AND ADDING THE NEW. THIS THREE-PART PROCESS IS WHAT I CALL CULTURAL SANCTIFICATION.”

“Again, sometimes foundlings which heartless parents have exposed in order to their being cared for by any passer-by, are picked up by holy virgins, and are presented for baptism by these persons, who neither have nor desire to have children of their own: and in this you behold precisely what was done in the case mentioned in the Gospel of the man wounded by thieves, and left half dead on the way, regarding whom the Lord asked who was neighbour to him, and received for answer: ‘He that showed mercy on him.’” [3]

Infanticide had to die, because of the value that the Christian faith places on each human life, particularly children, calls them a. “heritage from the LORD”[4] God given life should not be taken lightly, and there is no tolerance of the taking of innocent life.

The Romans were not completely evil, of course, and not all of their culture needed to be stripped away. Greek Stoicism established a tradition, called the “Logos”, of calmness, self-control, and a search for the purpose of all things, including mankind. If you can find the purpose of a thing, then that thing can be used to its full potential. This tradition lived on in Marcus Aurelius, the last of the great Roman Emperors, who wrote down his meditations for personal use. One passage, written to himself, reads “Don’t ever forget these things: The nature of the world. My nature. How I relate to the world. What proportion of it I make up. That you are part of nature, and no one can prevent you from speaking and acting in harmony with it, always.”[5] The nature of mankind, and its relation to the world is forefront to the stoic philosophy.

Christianity similarly seeks human accordance with nature, and resonates with cultures and the parts of cultures that reflect this virtue. This sensibility is expressed most succinctly in the opening lines of the Gospel according to John, which reads, “In the beginning was the Word, and the Word was with God, and the Word was God. He was in the beginning with God. All things were made through him, and without him was not anything made that was made... And the Word became flesh and dwelt among us, and we have seen his glory, glory as of the only Son from the Father, full of grace and truth.”[6] In the Greek manuscripts, the word for “word” is logos, the very same one that the stoics were seeking out. The Greek philosophers cried out searching for the Logos. The Christians admired this search, and introduced the Greeks and Romans to the Logos called Christ Jesus. The new Christians preserved this zeal for truth, understood now in the context of their new faith.

But this alone was not sufficient for the Greco-Roman character to come into a completeness. New practices and ideas had to be added, creating a distinctly Christian culture. Perhaps the most fundamental absence in the

[3] “To Boniface, His Colleague in the Episcopal Office, Augustin Sends Greeting in the Lord.” Philip Schaff: NPNF1-01. The Confessions and Letters of St. Augustine, with a Sketch of his Life and Work - Christian Classics Ethereal Library.

[4] Ps 127:3

[5] “The Internet Classics Archive: The Meditations by Marcus Aurelius.” The Internet Classics Archive | The Meditations by Marcus Aurelius.

[6] John 1 Interlinear Bible. Accessed April 1, 2020.



Greco-Roman culture was the lack of forgiveness. Jesus' command to love your enemies was not seen as strength, but a weakness and stupidity. The histories of the Greeks and Romans are replete with broken alliances and the annihilation of the enemy. Sparing a conquered city from destruction might allow that same city to come back and conquer your city. Forgiveness was not a virtue, it was weakness that could get your city conquered. And the Romans reinforced this principle as they conquered the known world.

It is in this context that Christianity arrived with its command of forgiveness. It was just as difficult a command back then as it is today, if not more so. After all, the ancients had a lot more to forgive than most of us do today. We also have the advantage of seeing the benefit of forgiveness from a public health standpoint. Dr. VanderWeele, Professor of Epidemiology at the Harvard T.H. Chan School of Public Health, has written about the effects of forgiveness, noting, "observational studies suggest that forgiveness is associated with lower levels of depression, anxiety, and hostility; reduced nicotine dependence and substance abuse; higher positive emotion; higher satisfaction with life; higher social support; and fewer self-reported health symptoms." [7] (VanderWeele). Previously absent, the Christian command of forgiveness and its benefits, came into the world, improving Greco-Roman culture and continuing to this day.

The case of Greco-Roman culture demonstrates the purging, purifying, and grafting effect of Christian faith on culture. A three-fold effect that is not satisfied with surface changes, but is neither seeking to destroy nor replace completely. As we are not ourselves when we are sick, neither are human cultures fully themselves in their present state. Change, if slowly, is still arriving. And it will shake and test our world.

[7] VanderWeele, Tyler J.. *Is Forgiveness a Public Health* (2018): 189-190.

Nate Nyberg graduated from Cal Poly in 2019 after studying Biomedical Engineering. He is currently working in technical sales in Eastern Washington. He also loves his girlfriend very much and wants her to know it.





GENE EDITING: HUMAN DIGNITY AND GENOMIC INTEGRITY

BY KENSIE SPEED

As human gene editing sits highly anticipated on the horizon of medical progress, there is heavy debate within the scientific community, as well as the greater public, regarding the role, if any, that the technology should play in the prevention of genetic diseases and disorders. There are many possibilities for the future of human gene editing within the medical field, equally exciting and concerning. Upon initial investigation of the buzzword “CRISPR”, one may find the potential benefits of germline editing to be astounding, as the CRISPR-Cas9 complex could allow for the erasure of genetic diseases in an individual and any of their descendants. With further investigation and research, however, it has become clear to most working within the field that the technology currently poses far too many physical and societal risks to be used clinically without extensive research. Furthermore, the unknown consequences of effects on the human genome as a whole is of extreme concern. These concerns must be analyzed by weighing benefits and consequences with a particular emphasis on ethics and human flourishing. An absolute principle that can allow us to navigate the ethics behind the technology is pursuing the overarching and uncompromising care for human dignity, as well as for the greater human genome. The development of CRISPR-Cas9 leads us to question if potential positives outweigh potential consequences, and vice versa. What might society’s choice on the matter reveal about the future of medicine and how it correlates with concern for individual human lives?

Before considering ethical aspects of human germline editing, the basic molecular mechanisms should be discussed in order to understand how the gene edits take place and are passed down throughout generations. CRISPR-Cas9 technology works by “cutting” a DNA sequence at a specific sequence of nucleotides, referred to as an “allele”, or version, of a gene. Although the Cas9 protein is naturally synthesized in bacteria, there is no engineered gene from another organism inserted into the genome of the embryo. Rather, the CRISPR-Cas9 complex is used to break the gene sequence at a specific gene, so that the mutated gene sequence can be replaced with the functioning allele of that gene. Of course, once a break is made by the CRISPR-Cas9 complex, the new wildtype, or functioning, sequence must be physically incorporated into the sequence during repair of the breaks. Therefore, by using CRISPR-Cas9, scientists are merely using a naturally occurring process in bacteria in order to make the break in human cells.

Because of the stage of embryonic development that this process would occur in, any edits made would be contained in every cell within the treated embryo and subsequently the adult human, including the germline. The germline, or bloodline as it is often called, refers to cell lines in which genetic material is passed down through generations. In humans, sperm and eggs are a part of the germline, as they are the mode of “passing down” DNA to a new generation. If a person whose DNA sequence was edited were to have children, those edits would be passed down to their child’s genetic code. This altered genetic sequence would



then continue to be passed down as long as that bloodline continues to grow over generations. This seems miraculous, as it could permanently rid these people of a harmful mutation. However, the flipside of that coin is that any unintended consequences that could occur in the process would also be passed down. The CRISPR-Cas9 “cuts” can be made on unintended DNA sequences, called off-target regions. When these “cuts” are made, the cell’s natural repair pathways work to mend the now broken DNA. However, these repair pathways occur quickly in the interest of fixing the broken DNA, possibly introducing mutations that would have not existed previous to the gene editing process.² These mutations can be pro-oncogenic, or cancer causing. Of course, since any edits made on human embryos are germline edits and will be passed down throughout generations, the risk of off-target mutations and pro-oncogenic mutations are of an even more alarming nature, as those mutations would be seen in the descendants of that individual. In addition to these known physical and hereditary risks, there is great concern for the potential to permanently alter the entire human genome over time, resulting in irreparable genetic consequences.

The concerns and convictions of using this technology are present in both the scientific community as well as the public. In a 2016 survey, 68% of surveyed United States adults were “worried” about the use of germline editing to prevent disease inheritance. However, the context of these worries vary from concern for moral consequences to concerns regarding the previously mentioned physical and hereditary harm it

poses. As found evident in another study conducted in 2019, the general public had more concern regarding the moral aspect and resulting consequences of using human gene editing rather than the physical and hereditary concerns. This suggests that regardless of the enormous physical risks that germline editing poses, the public is still primarily more concerned about specifically moral and ethical implications of the technology.

Although ethical and physical concerns were compartmentalized within that study, it isn’t that black and white. For example, the lack of consent involved by “treated” individuals seems like an ethical *and* a physical concern in the sense that there is lack of ethical consent for potential physical effects. Francis Collins, the leader of the Human Genome Project and director of the National Institutes of Health, argues that all medical trials should include people that have given fully informed consent to their received treatment and the potential benefits and risks associated. He points out, however, that in the case of germline editing, any person and all of their descendants are incapable of giving consent for their genomes being altered, given that the treatment occurs in the embryonic stage of human development. This is highly consequential, as these people would have their DNA, which is integral to their physical being, altered from what it would have been otherwise.⁴ For example, should the edit made in the original recipient have caused an off-target mutation resulting in a negative phenotype such as cancer predisposition, any descendant of that individual will

[1] “Advisory Group for Human Gene Editing Initiative Named.” *The National Academies of Sciences, Engineering, and Medicine* (2015).

[2] “Aparna Vidyasagar, “What Is CRISPR?” *LiveScience* (2018).

now also carry that gene sequence in their genome. Because this technology affects every generation stemming from the first person receiving that treatment, the scope of how it could potentially alter the lives of those who were unable to give consent would be massive. Current medical practices do account for the lack of consent of a child receiving treatment, as the procedure would be authorized by their parents, but not for every descendant that would be affected by germline editing in the future. This demonstrates a tremendous lack of care and respect for these people, as it completely overlooks their future and wellbeing should there be unintended consequences from the genetic edits.

Currently, the primary argument in Christian communities appears to differ from the concerns held by the general public against the clinical use of this technology. The primary, but not sole, concern held by many Christians is the notorious and absolute principle of our attempt as humans to play God, in which direct medical intervention on the human genome is unnatural and against God's will.¹ Collins asks, "who gets to decide what's an improvement on the genome"? How, as human beings, could we believe that we know enough about traits and their effects on the genome to make permanent edits to it?

Although the "playing God" concern may serve as necessary and sufficient reasoning for a Christian perspective condemning the use of human gene editing, the "general public" as referenced in the previously mentioned studies includes people of all backgrounds, religious and non-religious. Because the public's greatest concern regarding gene editing is the morality of it, a more effective approach is to explore a universal Christian principle that holds influence, is applicable, and generates action within all of the greater human family. For example, the "playing God" principle of morality may not serve as sufficient or applicable reasoning against use of human gene editing for some with non-Christian beliefs, who might not experience the same degree of moral conviction in replacing the role of an entity that they do not believe, or are unsure, exists. Of course, it must be considered that regardless of the existence of God, we as humans are not omniscient and lack the ability to predict the effects this technology will impose except for those that have already been witnessed in clinical research. If we are not omniscient, should it be in our power to change something that over time could change the very genetic code that is cellularly contained by all of the human family?

Playing God might appeal to some as grounds for admonishing the use of germline editing. However, this alone serving as the central argument against human gene editing in the Christian faith is not the most efficient way to encourage others to question the technology and its effects, rather than merely its motivations. Instead, it is vital to address an alternative absolute principle that must be considered in the use of genetic editing: the overarching love and uncompromising respect for each person individually, as well as for the greater human genome.

[3] "'Keep Off-target Effects in Focus.'" *Nature Medicine* 24, no. 8 (2018): 1080

[4] "Cary Funk et al. "U.S. Public Wary of Biomedical Technologies to 'Enhance' Human Abilities." *Pew Research Center* (2016).

The use of human gene editing compromises this absolute principle in manners both physical and sociological which can be recognized as an immoral misstep by people of any theological background or commitment.

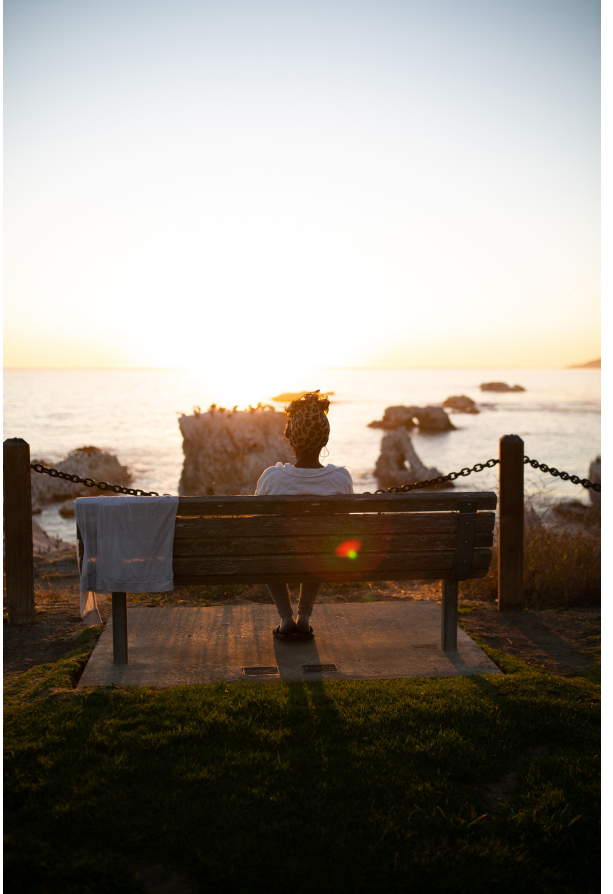
In order to fully adopt this ethically responsible standpoint of respect as a standard, a deontological ethics system must be in place. This suggests that the "ends" do not justify the "means". Regardless of the outcome of human gene editing, whether it be the reduction of a particular monogenic disease or otherwise, the technology poses too many potential harms to be used. Even if the gene editing proved to be entirely successful in one single case, it is not worth risking the wellbeing of thousands of human lives by subjecting them to the clinically proven risk that is prevalent with the use of this technology. Each single individual that could be impacted negatively by human germline edits must be considered and their welfare and safety cherished and respected.

Shifting from focusing on the "playing God" principle to an absolute Christian principle of treating others respectfully will be able to bridge concerns about germline editing across religions, or the lack thereof. The prospect of using human germline editing would be a massive human responsibility that has the potential to be at the detriment of many and should not be taken lightly. As is integral to Christian belief, we as human beings must care for the interest of all others and protect them accordingly, even if we ourselves would not be affected. Most importantly, as the technology becomes more accessible and perhaps encouraged, we as members of the human family must remember that the consequences of using this technology clinically will not manifest exclusively as problems for those within the Christian faith, but for all.

[5] Christine Critchley et al., "Predicting Public Attitudes Toward Gene Editing of Germlines: The Impact of Moral and Hereditary Concern in Human and Animal Applications" *Frontiers in Genetics* 9 (2019):704.

[6] Patrick Skerrett. "Gene Editing the Human Germline: What Are the Risks?" *Stat News* (2015).Human Abilities." *Pew Research Center* (2016).

Kensie Speed is a fourth-year Animal Science major and Biological Sciences minor from Kenmore, Washington. After graduation, she intends to pursue a career in genetic counseling and has interests in genetics, oncology, and bioethics. Her favorite pastime is spending time with all seven of her pets at home.



Featured Photographers

Top: Grant Lee
Left bottom: Maggie Chang
Left right: Bryan Num

UTILITY OF THE IMPRACTICAL

BY TIM RETTBERG

“Technology was invented to serve man, and yet everywhere his needs are at a crisis.”

Almost fifty years ago hundreds protested at the launch of Apollo 14 in Cape Canaveral, critiquing the faith Americans had placed in material and technological progress. During the Apollo program, these protestors, along with columnists and scientists, criticized the nation’s insistence on exploring space while Earth remained in crisis. Editorials in the *Los Angeles Sentinel* asked: “does the fact that we are preparing for space travel circumvent the fact that hunger and strife still exist unabated in this wonderful country of plenty?” and pointed out that America “is a country that cannot... protect black babies from rats but can spend billions to explore rocks, craters, and dust thousands of miles away.” The willingness of a country to spend billions of dollars on space programs while its own cities are in crisis demonstrates a lack of priorities. However, the hyperindividualism of the west coupled with the persistence of social and institutional crises can convince you there is nothing one person can do about it; that the promise of technological progress – no matter how abstract at the

moment – is ultimately worth more than alleviating present suffering. Criticisms of spending time and money on impractical programs are reasonable, and the prevalence of crises can numb concern for them, but neither alone represents a sufficient view of humanity.

Critiques of scientific exploration, of course, are not limited to the Apollo program, or even space exploration, but seem to follow any research not grounded in practical application. The development of a particle supercollider in Texas, which would have been larger than the LHC, stalled in part because the benefits of particle physics research are not immediately apparent. Furthermore, large scientific and technological developments in general are much more often driven by military needs than the desire to understand Earth or the universe. In fact, the funding for the space race itself was much more grounded in military development and the geopolitical tensions of the Cold War than in genuine space exploration. Justifying massive spending is understandably easier when it is on what is evidently practical or useful.

The impulse to question the impractical is well-grounded, though. Should we spend billions of dollars on human spaceflight while children suffer from lead poisoning, veterans sleep in our streets, and

[1] A statement on leaflets from protesters outside of the 1971 IEEE International Convention in New York Matthew Wisnioski, *Engineers for Change* (MIT Press, 2012),1.

[2] Alexis C. Madrigal, “Moondoggle: The Forgotten Opposition to the Apollo Program,” *The Atlantic* (2012).

[3] Mark A. Thompson, “Space Race: African American Newspapers Respond to Sputnik and Apollo 11,” thesis, University of North Texas Libraries (2007).

[4] Booker Griffin, “Moon Dust and Black Disgust,” *Los Angeles Sentinel* (1969).

[5] The Large Hadron Collider (LHC) is the largest particle supercollider in the world, ran by CERN near Geneva, Switzerland. It was central to the empirical confirmation of the Higgs Boson in 2011.

[6] David Appell, “The Supercollider that Never Was,” *Scientific American* (2013).

“The incarnation itself – that God became human in and associates with those pushed to the edges of society – not only acknowledges those society has actively neglected but values them.”

schools close or remain underfunded? Is there a place for billion-dollar space programs – public or private – in a nation that continually fails to address the poverty in its own cities? But if not, what role is there left for scientific exploration? Is there not value in exploring distant planets, searching for theorized subatomic particles, or studying black holes? Is there value in what is not immediately practical?

This tension is often framed into a divide between STEM and the humanities. We are told science and engineering are practical, grounded in real life, and useful, whereas that the humanities are abstract and not a viable career path. However, it is important to point out that this apparent divide is not what it is made out to be. As evidenced by the controversies surrounding the Apollo program, what is practical and impractical is not so black-and-white – what is deemed impractical often turns out to be useful long-term. History, theology, literature, and art more often than not urge us to grapple with our failings, crises, and injustices. And often, engineers, scientists, and mathematicians are held captive by abstractions and grand questions. Nevertheless, disdain for what is deemed impractical and cynicism towards social crises are distinctly prevalent in popular characterizations of the humanities and STEM.

Students at Cal Poly know this reality first-hand. The technical, job-placement-focused model of education that Cal Poly proudly embodies is increasingly common in American universities and institutions. Although it isn't true of every major and course, the overall ethos of the university and administration neglects theory and strong fundamentals in favor of a fixation on application or immediate utility. It is easy to point out, as noted before, that what is useful is not black-and-white. However, we must also be clear that value does not begin and end in utility.

Value is certainly found in what could be deemed impractical. In studying blackholes, searching for hidden particles, or exploring distant planets, we can find an inexplicable awe for the beauty of the universe, learn about who we are, and see a glimpse of who God is. David Brown, S.J., a Vatican astronomer and Jesuit priest, points out that studying astronomy is valuable in part because it “lends itself to prompting philosophical and theological questions, existential questions with

tremendous bearing on human beings.” Independent of utility, science is virtuous for its asking of deep, important questions about humans and the universe, and for seeing more clearly who God is.

However, value is not only found in the abstract, grand questions and God is not only in the philosophical and spiritual. God is also found on Earth – in the physical, in the crises and suffering, and in the margins of society. In the same interview, David Brown S.J. explains that part of what drew him to the Jesuit order of the Catholic Church was its attention to caring for the poor, the displaced, and the marginalized. As recognized in Liberation Theology and according to the gospel of Matthew, Jesus – a Galilean Jew – not only associates with, but is the marginalized. Virgilio Elizondo points out that in Jesus,

“God becomes not just a human being, but the marginated, shamed, and rejected of the world. He comes to initiate a new human unity, but the all-important starting point is among the most segregated and impure of the world. Among those whom the world has thrown out, God will begin the way to final unity”

The incarnation itself – that God became human in and associates with those pushed to the edges of society – not only acknowledges those society has actively neglected but values them. In fighting the crises around us, then, we not only seek justice for its own sake, but we find that God is already there, with the outcast, vulnerable, and oppressed. This principle – that wealth and success are not intertwined with value and worth – is not only important to Christians. In a country of widespread inequality and preventable suffering, the subversive ethic of Jesus' association with outcasts is instructive for anyone who seeks something different.

I'm not sure what it looks like to properly balance valuing the impractical with care for social and institutional crises. What is clear is that a worldview with only one of the two is insufficient. The hyperindividualism common in American culture will have you compartmentalize yourself out of society's crises, whereas the abundance and urgency of crises can reduce value to utility. But the God who created the entirety of the universe, declared it good, and became incarnate in the margins paints a different picture of what to value.

[7] Caitlin Zaloom, “STEM Is Overrated,” *The Atlantic* (2019).

[8] Sean Salai, S.J., “Finding God in the cosmos: an interview with a Vatican astronomer,” *America Magazine* (2018).

[9] *Ibid.*

[10] Matthew 25:45.

[11] Virgilio Elizondo, “Mestizaje as the local of Theological Reflection,” *The Future of Liberation Theology*, eds. Marc H. Ellis and Otto Maduro. 358-374.

Tim Rettberg is a fourth-year Aerospace Engineering major from Rancho Cucamonga, California interested in rocket propulsion, history, and politics. After graduation, he hopes to work on propulsion systems in the Aerospace industry. In his free time, he enjoys hiking and reading.

CITRA

BY ROBSETH TAAS

I mean, I'm not angry at Jasper. It's not his fault he got mono right before the Lunar New Year banquet we had been planning for the last three weeks. If anything, it's my fault for not noticing that he wasn't feeling super great. Hold on, I did notice that he was acting quiet. But it was only around me. He said it was nothing but maybe he's getting annoyed with seeing me all the time? I should've asked him sooner if he needed me to handle more of the planni-

"Citra, what do you think about the question on the board?" asks Dr. Schlub from the front of the classroom.

Crap, what even is on the board? "What are three systems thinking aspects that can be applied to a biomedical device?" What does systems thinking even mean? This happens every damn time I come to this stupid... "Um, I guess it's helpful to think of a prosthetic limb as a system instead of just one part?"

"Good point. Until we can start thinking about the device on a much broader level-

For someone so intelligent, Dr. Schlub sure has a hard time sniffing BS. I'll talk to Jasper later and ask him if there's something I did, or any way I can help him out. Right now, I have to focus. The banquet is two nights away and I still need to...

Two Nights Later

I spot him walking through the main doors of the banquet hall. *Oh, right on time! Jasper never lets me down when there's something he's in charge of. "Jasper! Hey, the banquet starts in half an hour, and I don't know if you got my messages, but you and your planning team can set up in all four corners of the room. Make sure that-*

"Oh yeah hey, could you actually help me with installing the sound equipment? I picked it up from the rental shop just now and everything works, but I've never used JBL before, so..."

"Of course! You're still getting better from being sick, so let me handle it."

"You sure? Sweet! I'm gonna call Lin and Kara right now, and when they get here we'll set up. Thanks babe!" He kisses my cheek before walking off.

He isn't angry with me! Thank God. It's been four days since I've seen Jasper or heard his voice. He looks and sounds tired. It's best if I don't mention that the back two corners of the room need to be set up differently now; I'll just ask Dinah for help with that. All right, once we set up sound, I've got a few minutes to start my...

Eight hours later

... "Oh, she's waking up. Citra! Are you all right?"

Dinah looks horrified! Did I do something wrong? And next to her is... Lin? I don't really know him that well. He's staring as if he doesn't recognize me... which is probably true now that I think about it. "Dinah? What's going on?"

"Do you know where you are? Do you remember how you got here?"

Where... I am... is on a sidewalk, under a streetlight, in the pitch-black night. Am I still wearing my dress? I smell like a doggie bag. "Um. The last thing I remember..." is the start of the banquet. I think? No... I was greeting all my friends in the Indonesian Student Association... making sure the event was running smoothly, leaving to grab Silas whose car broke down, alternating tasks with Dinah so she would finally stop following me around everywhere-

Lin interrupts my thought, "Dinah, look at her. She won't be able to remember anything if she's freezing. Give her your coat."

Oh no, I love that cashmere coat of hers. I don't want to ruin it with all this barf on me. "It's okay, I'm not cold. Can you just take me home?"

They try lifting me off the sidewalk, but my legs suddenly buckle. "Ahh! Sorry, I don't know why-

Still clutching my arm, Dinah feels my forehead and speaks with uncharacteristic gravity. "Of course you don't think you're cold; you've got a fever. Let's just set her down and wait for the police here."

"WHAT? You called the cops? What the hell did I do?"

My roommate ordinarily cries easily. Yet her sadness is buried inside a look of terror I have never seen on her before. "Anak. Kara called me at two in the morning asking if you got home all right. I was confused because I thought you and Jasper went to his place after the banquet, but apparently not. I called Jasper, but he didn't answer. I called everyone in ISA, but no one knew anything. So, my only choice was to call 911 and say that my drunk roommate was wandering downtown by herself. And I started looking for you around Jasper's apartment with the only person who would come with me, Lin."

...? I drank a little bit when the banquet was winding down... and at

the very end of the night Theo challenged me to one of our can't-hold-their-liquor contests. That much alcohol isn't enough for me to get that... Oh wait, I remember. There was an afterparty downtown, and I asked Jasper if I could crash at his place, and then Jasper, Kara, and I...

Or... no, did he leave before I did, just him and Kara...?

Did I see that right? Did they really...?

I can hardly think anymore. It's not just my legs or forehead at this point; with my whole body either aching or afire, I begin to hear sirens and glance at the two distressed gazes beside me one more time before time cuts out.

One Week Later

"Are you sure you don't want me with you when you talk to Jasper?" implores Dinah. "What if it brings too much back up? I didn't sit by your side through two nights in the hospital and three days of therapy for you to go back in again."

"I think I can handle it," I lie. *The last thing I need is another conversation where Dinah does my thinking for me.* "I mean, I don't have mono anymore. Or a way to get alcohol. So right off the bat things are going better than... last week."

She gives me that irritating mom smile. "Ok. I'm glad you're finally looking on the bright side of things. I'll see you in BIO" and she leaves me with a saccharine embrace.

I like it better when your hugs aren't this tight. And what's "finally" supposed to mean? Whatever. Right now I've got to talk to my boyfriend, and I can't afford to break down before then. I make my way to the place on campus he told me we'd talk.

"Citra! Are you okay?" I haven't seen that expression of genuine concern in ages. It makes me start to forget the last seven shitty days.

"I'm fine, I'm fine. Especially since I can talk to you now. Listen, I just wanted to say sorry for scaring you and everyone else. I was irresponsible, and I should really take better care of myself. And that means... moving forward I think I'm going to have to leave more of the responsibilities in ISA to you. If that's okay..."

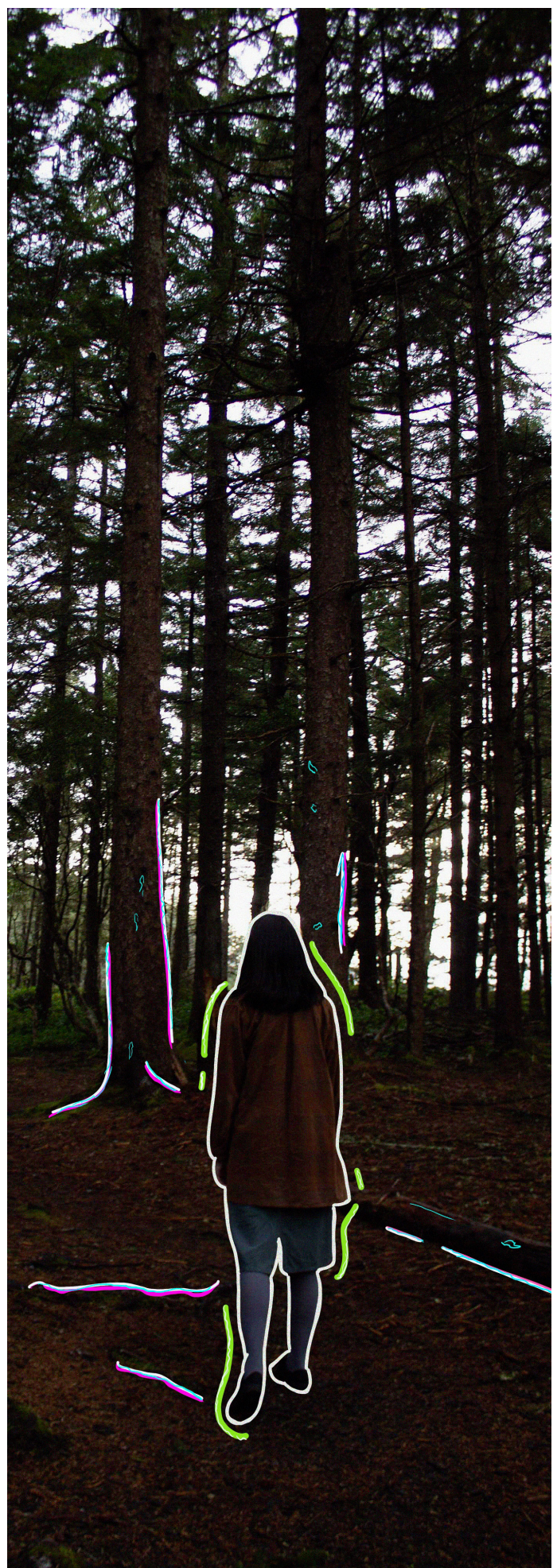
He pauses. "Huh, that's a new one. Your motto was always something like 'I'll sacrifice anything for the people I love.'"

Crap! I must be taking it too far—this new, assertive Citra my therapist advised me to use. "If you can't, I'll find someone else to take up my—"

"No no, I'm not upset or anything. I'm totally fine taking on your duties. I'm actually... proud to see you're sticking up for yourself. I like it."

Oh. Well damn. Who knew being proactive was... appealing? I start laughing. "Yeah, it's just something they taught me in therapy. Hey... there's another thing I wanted to talk about. The last thing I remember before I blacked out last week was—"

Jasper crosses his arms, looks at his shoes, and starts nodding to himself. "Me and Kara. Yeah... listen, it was just a one-time thing, and



everyone was drinking, and it was late, and... she's been coming on to me ever since a few weeks ago when she got mono and I was taking care of her."

If I had to hear all of my fears confirmed, shouldn't I at least be glad it's coming directly from Jasper's mouth?... No, I'm far from glad. Jasper's been cheating on me, and him telling me makes this all the more painful... What do I say? Do I tell the only person who makes me happy that I'm through with him? Did I really sit through the most miserable week of my life—separated from my friends, suffocated by my parents, seen as a failure by ISA, and confined to counseling session after counseling session—to have it... and me and Jasper... end? "Ok... but where are the two of you now? This whole time, you never mentioned me?"

"Why would I? Kara and I are just friends, and this whole time I was just taking care of her. What was I supposed to do, let my teammate for the banquet suffer by herself? Listen, I made a mistake last week, right before... everything that happened with you. I'm sorry."

"... It's okay babe... How are we doing?"

One Year Later

No one to wake me up this time. Managed to do that all by myself.

I wish Dinah were here to wake me up. She's the only person who wouldn't judge me for lying about my drinking. Maybe I should ask her to

be my new therapist.

The last time I blacked out like this, she looked worse than I probably did—that look of horror warping her normally pleasant face. That's saying something, since I had puke all over me. She's the only person these days who cares enough to be horrified by me and my actions. Even I've stopped doing that.

I don't deserve Dinah. I take back what I always used to say; I wish she did all my thinking for me—she's already been doing all my standing.

Maybe it's for the best that she isn't here to see me like this. I'd hate to be even more of a burden on her. This bottle of Absolut isn't as much of a comfort as she is, but at least it's just as good at holding back the tears, so long as it isn't... dry. Dang it.

I should have listened to Dinah and broken up with Jasper last year. I could sense he and Kara were messing around, but I denied it. Or I was too stupid to see the evidence. First she caught mono, then Jasper, then me. I wonder if paying attention in epidemiology would have taught me about the so-called kissing disease and saved me all this heartache.

I miss being in ISA, being everyone's best friend, confidant, and mentor. They asked me to step down from leadership since all the responsibilities and interpersonal stresses wouldn't have mixed well with my depression. You know what mixes even worse with depression? Emotional negligence.

I miss them, but I can't deny I'm burnt out from all the social interactions. I devoted my passion to ISA because its members need a mother, and I was too naïve to realize I'm neither a mother to my friends



**“OH, IT MEANS
PICTURE, IMAGE,
ARTIST’S IMPRESSION.
IT’S A BEAUTIFUL NAME.”**

nor in a position to foster fifty children at once. And how many of my “family members” have checked in on me since I left? Only one comes to mind... granted, I’m not roommates with those other fifty people.

Oh, well there’s Lin. He’s close to Jasper, and I don’t often hang out with him. Yet he checks up on his friend’s ex an astonishing amount. My first blackout must have impacted him or something. Or it could be those times Dinah and I baked desserts for him and ISA every finals week. I’m not really certain. I have to admit that he’s the only one outside my family who pronounces my name correctly—with the ch sound at the beginning. I usually let people call me whatever they want, but I assume Lin doesn’t want to associate me with lemons and oranges. Heh.

Jasper? Haven’t spoken since our breakup last month, and that might be for the best. I don’t know if it’s maturity or even a lack of dignity on my own part, but I’ve forgiven him. He truly was good at taking care of me before trading me in for a newer model.

Speaking of which, Kara... is actually really cool? More-than-what-Jasper-or-anyone-deserves cool. She called things off with him once she found out he had cheated on me with her. I know Jasper and I weren’t the most affectionate in public, but that entire time, how did she really not notice he and I were going out—whatever. Every time I see Kara, she says she’s praying for me. That sounds so sweet. She gave me her bomber jacket the other day as a gift since she thought I would look really good in it, and she heard I get cold easily. It says—what was written on the back?—oh yeah, POEM. Wait... no, it was POIEMA. I promised her I’d look up what that means, but I keep forgetting.

I struggle in my biomedical classes because I have a feeling I was made for something so much more than theoretical nonsense—because I care about the idea of Student Citra far less than I do about the idea of Nurse Citra.

Citra.

Ciiitraaa.

My mom told me what my name means a long time ago: in Indonesian it stands for—

“CITRA!” I hear yelled from the silhouette behind the glass of my door. My best friend fumbles with her keys and rushes in, apologizing. “Aghh sorry I’m late! What’s going on? Why didn’t you text me that something was wrong? I would have told my boss that I couldn’t work late today.”

“Oh, it’s okay Dinah. Nothing’s wrong.” It was Indonesian for

something... something to do with fruit? No, it was...

“You were frozen on the floor when I came in, so I didn’t know if something happened,” she replies with strained unease.

My poor roommate, having to work late nights and agonize over an infant like me. I wonder, is she tired of coming home to this? And does she even believe me at all when I lie to cover things up anymore? ... Speaking of lying. “It’s nothing; I just dozed off on the carpet,” from which I pick myself up. Maybe I’m named after an Indonesian goddess? “Hey, isn’t this, like, the second time you had to work late this week? And even then, doesn’t your boss let you get home earlier than this?”

As effective as self-trivialization has been for keeping those I love from worrying, ever since I told Dinah about all the cognitive distortions my therapist diagnosed me with, I haven’t had much success using it. She counters, “Don’t change the subject. I’ve walked in on you drinking on the carpet before, but you were never completely still like this. Anak, seeing you like that brought back these mental images—”

“Image! That’s what it was... sorry, I’m not deflecting—’cause that doesn’t work on you anymore—but I’m trying to remember what my name means in Indonesian.”

As if endorsing the rare look of glee on my face, Dinah graciously answers, “Oh, it means picture, image, Artist’s impression. It’s a beautiful name.”

“Yeah that’s pretty funny, actually... Artist’s impression? Heh, if I’m such an art piece, it makes me wonder what kind of impression my viewers will have as they look at this depressed college girl who isolates herself, too obsessed with the trees of her tiny little life to see the forest.”

For a brief moment, Dinah tries gauging how seriously I mean my statement, but I start softly laughing as I entertain the picture of being an image of grace and artistry. “What kind of Artist would draw a picture like me? Not a very successful one, that’s for sure.” Hee hee.

Warily yet optimistically, Dinah smiles and says, “I haven’t heard you laugh like that in a while. It’s always been one of my very favorite things about you, actually. That first time—a few weeks after your dad’s surgery—it sounded... pained yet... gracious. When we first became roommates, I used to hear it after coming home from a tough day and feel... reassured. It’s a soft laugh, but it taught me what strength in the face of suffering means.”

Robeth Taas is a Aerospace Engineering graduate from Fremont, California. Known as Robbie to those close to him, he enjoys making music and bringing joy to those around him through singing or rapping short jingles. His life is a reflection of: “Love God, Love Others, Love Yourself.”

GOD IS DEAD



I ran into the schools
I saw man made masks,
Covering every child's face
A man stood at the front,
Handing out masks to children
He wore a mask like everyone else's
I shouted at them all, saying
"God is dead,
And we have killed him!"

They pointed to the man's mask, saying
"Our God is alive and well"

I ran into the courthouses
I saw judges with gavels in their hands,
Condemning the innocent, protecting the
wicked
Lady Justice read the writing on the wall,
Weighing them in the balance,
Finding them wanting
I shouted at the jury, saying
"God is dead,
And we have killed him!"

They pointed to their judges, saying
"Our God is alive and well"

I ran into the legislative houses,
I saw a circus filled with donkeys,
Failing to address the elephants in the room.
Three blind mice read the writing on the wall,
Declaring their kingdom divided,
No longer able to stand

I shouted at the public, saying
“God is dead
And we have killed him!”

They pointed to the donkeys and elephants, saying
“Our God is alive and well”

I ran into the churches
I saw the masses led by men who spoke
Honeyed words with tongues of fire,
Telling them to wear masks,
Telling them to become judges,
Telling them to become donkeys
Telling them to become elephants
And I shouted one last time saying,
“God is dead,
And *you* have killed him”

They pointed to the men who led them, saying
“Our God is alive and well”

*The poem is based on Friedrich Nietzsche's (1844-1900) "God Is Dead" passage. Many assume his assertion that "God is dead" is a justification for atheism and nihilism. While Nietzsche was an atheist, he did not attempt to "kill god" by saying "God is dead"; rather, he prophetically foresaw the decline of religion within Western Culture and how a sufficient replacement was necessary to safeguard society from moral relativism and cultural chaos.

Nick Chaney is a third year English major from Delano, CA. He enjoys writing poetry and bringing people together. In his spare time, he refines his political beliefs, grabs Boba with friends, and plays Dungeons and Dragons. In the future, he hopes to be a high school teacher, published author, and youth pastor.

THE NICENE CREED

We believe in one God,
the Father, the Almighty,
maker of heaven and earth,
of all that is, seen and unseen.

We believe in one Lord, Jesus Christ,
the only Son of God,
eternally begotten of the Father,
God from God, Light from Light,
true God from true God,
begotten, not made,
of one Being with the Father.
Through him all things were made.

For us and for our salvation
he came down from heaven:
by the power of the Holy Spirit
he became incarnate from the Virgin Mary,
and was made man.

For our sake he was crucified under Pontius Pilate;
he suffered death and was buried.
On the third day he rose again
in accordance with the Scriptures;
he ascended into heaven
and is seated at the right hand of the Father.

He will come again in glory to judge the living and the dead,
and his kingdom will have no end.

We believe in the Holy Spirit, the Lord, the giver of life,
who proceeds from the Father and the Son.
With the Father and the Son he is worshiped and glorified.
He has spoken through the Prophets.
We believe in one holy catholic and apostolic Church.
We acknowledge one baptism for the forgiveness of sins.
We look for the resurrection of the dead,
and the life of the world to come.

Amen.

A PRAYER FOR CAL POLY

How can we love our neighbor
Without coming to You, oh Lord
And raising a face to truth
Not our truth, but Yours, oh Lord.

We proclaim science, success
And progress. But what is progress
Without reason for such?
It is trial and error and error again.

What is this all for
A 4 point gain?
Why do we tire again and again,
Faces white with anxiety?

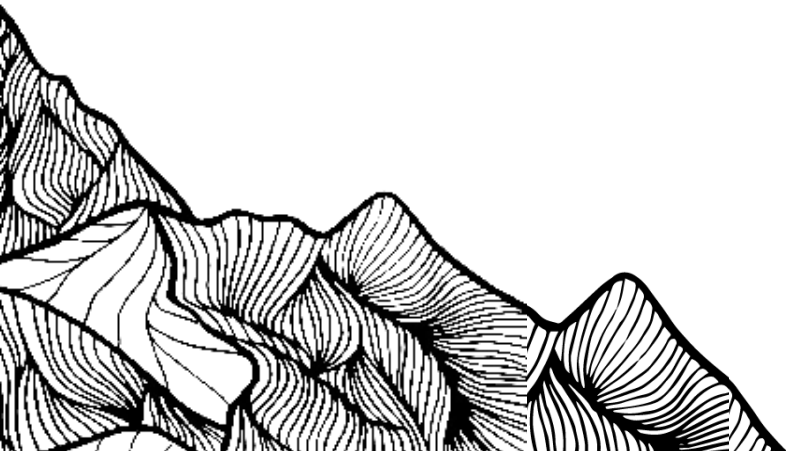
By our own power we have none.
By our own wisdom we come undone.

But with Your Word, oh Lord,
We find our purpose-- a glow
Of grace and hope
Between grey, booked walls

All clarity, all sun: You
Are the reason, oh Lord.
You give us the opportunity
To glean and give, oh Lord.

Let us run towards the truth
Not a feigned mission, no!
Through the stumbling let us seek
You, in robes of reality.





THIS PAGE WAS INTENTIONALLY LEFT BLANK

ALETHEIA

A JOURNAL OF CHRISTIAN THOUGHT

