

**ST. THOMAS AQUINAS COLLEGE
2nd ANNUAL ART, DESIGN &
SCHOLARSHIP EXHIBITION**





Ignite your curiosity. Ignite your imagination.

Welcome to Ignite: St. Thomas Aquinas College's second annual Art, Design, and Scholarship Exhibition. Ignite is a celebration of our undergraduate students, their research, and their creativity from multiple disciplines across campus. The scope of the presentations featured showcase the outstanding caliber of our undergraduate students at St. Thomas Aquinas College. We hope that this exhibition will ignite a passion for discovery and ingenuity in all of our students for years to come.

The projects on display also demonstrate the ongoing commitment of our faculty to supporting undergraduate research. As is true of their faculty mentors, these students and their work hold the potential to contribute positively to the world. Each of these students has benefitted from guidance provided by exceptional faculty. We thank the faculty for their efforts on behalf of these students.

We strongly encourage you to share in this showcase -- visit the poster presentations, view exhibits on display in our gallery, and read the collection of abstracts included in this program.

Organized and curated by

Nina Bellisio
Director, AMAG
Associate Professor of
Visual Communications

Ethan Finkelstein
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Matthew Finn
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Professor of Visual Art

IGNITE: 2nd ANNUAL ART, DESIGN & SCHOLARSHIP EXHIBITION

**April 24- May 12,
2017**

Utilizing a structured thematic approach in therapeutic recreation to affect socialization and relaxation in those diagnosed with mild cognitive impairment

Yadirys Batista, Tiffany Ceres, Caryn Balacky, and Stephanie Roman

Mentor: Linda Levine-Madori, Ph.D., Professor of Therapeutic Recreation

This pilot study was conducted at an independent senior living facility in Sparkill, New York, with residents suffering from mild cognitive impairment and self-isolation. For the period of ten weeks, students from St. Thomas Aquinas College were self-selected to participate in these sessions held once a week with the residents. Throughout the ten weeks, we conducted a quasi-experimental research design with pre and post questions designed to measure the resident's socialization and relaxation before and after each session. The results of the study indicated significant correlation of participation through the use of meditation and personal thematic approaches through therapeutic recreation. The findings indicate that these self-reported, isolated residents increase their social interactions and the overall feelings of relaxation. This research study adds to the body of knowledge on the significance of meditation, person centered programming and increased feelings of self-worth, and self-esteem through theme topics in therapeutic recreation.

The Benefits of Co-Teaching in an Inclusive Classroom

Morghan Sonzogni and Ileah Pratt

Mentor: Elizabeth Finnegan, Ed.D., Associate Professor of Teacher Education

Based on a presentation given at the New York State Council for Exceptional Children's Annual Conference, this research outlines the benefits of co-teaching. Research on five different co-

teaching models was reviewed. Next, participants at a conference presentation were asked to comment on the benefits and constraints of each model. The comments were then aggregated for this presentation. Overall co-teaching was found to be beneficial. Benefits include: (a) students having the opportunity to be taught an individualized curriculum with specific instruction, (b) students with disabilities will be provided access to the general education curriculum and general education setting, (c) teachers expand the scope of their teaching capacities with differentiated instruction, (d) more student connections with peers.

Contextualizing the Canon: The Importance of Studying the Bible Using the Historical-Critical Method

Riana Mendez

Mentor: Craig Martin, Ph.D., Associate Professor of Religious Studies

The Bible is commonly approached using the devotional method in which readers interpret the text in relation to their own life and society. However, this technique removes the Bible from its historical context, overlooking the point of emphasis of each biblical author and the setting in which they wrote. In order to understand the Bible in its original context, the text must be studied

ART THERAPY

Celine Grajo *These Marks, These Marks* acrylic on canvas

Amy Gumberg *Self Portrait* oil on canvas



using the historical-critical method. This approach seeks to understand the Bible as a historical document, asking why and how it was significant for the original authors and audience. This technique allows scholars to examine the biblical translation process, and study each book individually in order to separate historical credibility from authorial intent. By placing the Bible in context, readers can begin to identify what concepts and parts of the text are historically plausible, and when projection is most likely taking place.

Visualizing the Localization of She1 Within *Saccharomyces cerevisiae*

Courtney Tello

Mentor: Ryan Wynne, Ph.D., Associate Professor of Biology

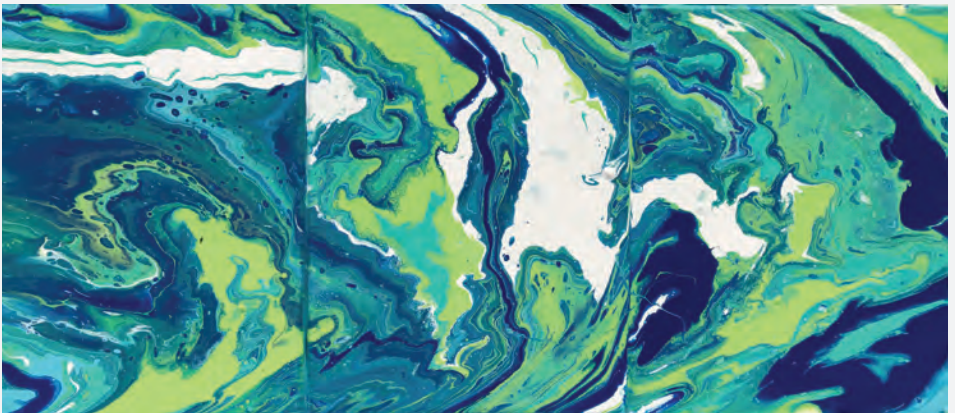
Dynein is a molecular motor that transports various cargoes toward the minus ends of cellular microtubules; yet, how its activity is influenced so that the spindle moves in the appropriate direction is unknown. It was hypothesized that by favoring its localization specifically to microtubules on only one side of the spindle, dynein activity is inclined towards the site of cell division. However, whether She1, a dynein inhibitor, displays this asymmetric localization is unknown. Here, I have fused She1 to either EGFP or a novel split GFP technology (GFP11x7) to allow visualization of She1 within living cells. Yeast cells expressing these She1 fusions were used to test the hypothesis that She1 localizes asymmetrically. The results suggest that She1 localizes along astral microtubules during G1 phase and along the astral microtubules within the mother and daughter cells during cell division.

ART EDUCATION

Kristina Mathisen *Untitled* poured acrylic and mixed media

VISUAL ART

Eva Cochran *Recycled Dresses* newspaper, plastic bags, recycled containers and TetraPaks



Stranger Things: Revealing A Voiceless Working Class

Maria Keegan

Mentor: Staci Shultz, Ph.D., Assistant Professor of English

The working class condition is one of trial and hardship, marked by a lack of socioeconomic status that creates a stressful and uncertain lifestyle. This condition is heightened when those with more power and wealth use their means and opportunities to manipulate the working class. This paper addresses the power dynamic between the voiceless working class and overly inflated government as depicted in the television series *Stranger Things*. I argue that through the character of Joyce, a working class single mother, the show demonstrates how the working class struggle is deepened due to the suppressing, immoral presence of a corrupt, self-serving government. My intention is to demonstrate how when those who have means make mistakes that impact those without, they tend to protect themselves from accountability, allowing those victimized by their wrong-doings to suffer the consequences.



The STAC New Hope Movement - A Spes Nova Project

Edward Brown, Kevin Gately, Silvana Molinas, Arianna Riollano, Chad Sinko, Nicole Zoccali
Mentors: Deirdre-Noel Engels, D.P.S., Assistant Professor of Marketing, and Rossen Trendafilov, Ph.D., Assistant Professor of Finance

Despite economic growth fueled by globalization and international trade, social inequality and poverty are still common in the world today. One viable solution is fair trade. Fair trade promotes socially and environmentally responsible business practices, which can alleviate suffering and promote economic growth.

Our project was designed to introduce students to the concepts and practical applications of global marketing and fair trade. We focused on researching a specific developing nation (Haiti) and the unique challenges they face. Together, we selected artisanal crafts to market on the e-commerce website of the STAC New Hope Movement. The STAC New Hope Movement is part of a collegiate cooperative project sponsored by nonprofit Spes Nova along with Vassar and Fordham Universities.

We hope to continue to evolve this project in future semesters with new students leading the way to expand this e-commerce platform and explore new issues related to Fair Trade.

ART THERAPY

Kristina Rose *After Smaug* acrylic on canvas

Kelly Monzon *Filth in the Beauty* digital photograph



SmartFit

Jules de Courtenay

Mentor: Robert Vermilyer, Ph.D., Professor of Computer Science

SmartFit is a fitness phone app for iOS. Since the fitness category is highly over-saturated, I understand that there must be something, which sets it apart from the other apps like it. SmartFit does this by creating fully personalized workouts for the user, for free, using an algorithm, which I created. When they first create an account, the user is prompted with thought provoking questions, which ultimately provide the perfect amount of information for the app to create tailored workouts. The backend is handled by Firebase (a Google company). Users create accounts, either through email or Google, which save their information so that they can open the app and get started with their next workout immediately. The app will also provide an interface for viewing progress throughout their workouts through a list of personal bests and even graphical representations.

Utilizing a Structured Thematic Approach in Therapeutic Recreation to Affect Mood and Cognition in Those Diagnosed with Mild Cognitive Impairment

Melissa Urena Castillo, Lauren Melville, Abigail Munro, Jessica Stokkeland, Gabriel Yum

Mentor: Linda Levine-Madori, Ph.D., Professor of Therapeutic Recreation

At Dowling Gardens, an independent living community, located in Sparkill, New York, five residents were invited to participate in a Therapeutic Thematic Arts Program, conducted by students over a period of ten weeks. These residents were self-selected due to self-isolation and mild cognitive impairment. Students from St. Thomas Aquinas College were paired with a resident. The sessions began and ended with pre and post questions created by the students, measuring mood and cognition. Collected quantitative data, showed a strong correlation between enhanced mood and cognition and an overall increase in time spent in programming. The quasi-experimental study continued research on the use of weekly meditation and person-centered thematic interventions. The data exemplifies previous information on structured programming and how it positively affects mood and cognition. Therefore, continued research is needed to gather further data in how the use of person-centered themes enhances therapeutic recreation.

Of Course They Like Me: An Alternative Model for the Benjamin Franklin Effect Based in the Reciprocity of Liking

Brianna Weaver

Mentor: Benjamin Wagner, Ph.D., Assistant Professor of Psychology

The reciprocity of liking is applied to develop a new, alternative, explanatory model of the Benjamin Franklin effect in opposition to the popular theories of cognitive dissonance and self-perception. In the first study, we predict that participants who perform a favor for the experimenter will tend to perceive him as liking them more than participants who do not perform a favor. In the second study, participants will either perform an anonymous or an identifiable favor for a confederate. We predict that participants who perform an anonymous favor will tend to like the confederate less than participants who are identified to the confederate as having done them a favor. The predicted results of the two studies, when taken together, would imply that the reciprocity effect deserves further consideration as a social factor and driving force behind the Benjamin Franklin effect.

ART THERAPY

Katrina Kuan *Mantra Panels* charcoal and acrylic on paper

Kristen McDermott *Untitled* watercolor and pencil on paper



Life Through Different Eyes A Case Study on Autism and Art Therapy

Kristina Rose

Mentor: Carol Lagstein, M.S.W., Director of Art Therapy

At Green Chimney's, a residential treatment center for kids 6-21, I used art as a tool to help children with challenges, some of whom are classified on the autistic spectrum, to work toward reaching specific goals. Carefully planned art experiences were implemented in an attempt to help the children work towards their goals of better, positive peer interaction and increased independence. As an undergraduate art therapy intern, I co-facilitated a sensory group with two art therapists and a recreational therapy intern. Our group lasted for two months, with a total of seven sessions that lasted for an hour. This group consisted of five members, three of which are on the autism spectrum. Each week I planned sensory related projects that met the abilities and interests of each member. In the beginning each member created art with the help of staff on an individual project, however, in the last couple of sessions I introduced more group-oriented projects while the staff and I took a step back from the art making process. The empirical evidence, supported by the observed behavior and interaction through art, suggests that the art experiences helped the children to reach some the planned goals.

Middle School Self-Perceptions of Academic Competence and Conflict Resolution

Tina Roman-Cardona & Nicole Mirro

Mentor: Athena McAlenney, Ph.D., Associate Professor of Education

Television programs aimed at middle school students frequently depict parents as ill prepared, immature, and lacking in authority for the children in their care. Children in these shows are depicted as independent, with the ability to successfully resolve important conflicts without adult intervention. This survey research seeks to answer the questions: Are middle school aged children able to resolve conflict and find equal success with little to no parent, guardian or other caring adult direction and support? Is success in conflict resolution related to parent/caregiver relationships, academic competency, or something else? Results demonstrate declining self-perceptions of closeness to caregivers and academic competency over the middle school years with increasing perception of independence in conflict resolution.

A Pharmaceutical ‘Epi’-Demic; An ethical analysis of Mylan Pharmaceuticals

Tim Ehardt, Mike Cappabianca, Samantha Burden, Patricia Nersten, Carolyn Kopf , Jillian Colleluore

Mentor: Christine Cahill, J.D., Associate Professor of Business Administration

There has been questions of whether Mylan Pharmaceuticals has engaged in illegal or unethical activity during their corporate efforts that dramatically and notoriously increased the price of their product “Epi-Pen.” As the frustration of citizens, consumers and lawmakers towards Mylan’s seemingly unethical behavior continues to grow, more questions arise. Mylan has virtually created a monopoly with little to no competition in their industry. We analyze the business of Mylan, including their management and marketing strategies, their finances and whether or not Mylan broke any laws, including antitrust laws. Throughout our analysis we explore if Mylan, and other companies in the pharmaceutical industry, should have greater ethical and social responsibilities.

The Curious Incident of the Dog in the Night-Time: An Exploration of Emotional Intelligence

Mara Manole

Mentor(s): Staci Shultz, Ph.D., Assistant Professor of English, and Elizabeth Finnegan, Ed.D., Associate Professor of Teacher Education

VISUAL COMMUNICATIONS

William Decker Jr. *Jeep of Southampton Water Bottle Label* Photoshop and InDesign

Sean Meigh *Once On This Island* Poster Illustrator

Danielle Waterman *New Yorker Film Festival* Poster Illustrator



People have various ways of coping with unexpected events and situations in their lives and this is especially true for people with disabilities. In the novel *The Curious Incident of the Dog in the Night-Time* by Mark Haddon, the protagonist, Christopher, finds himself attempting to solve a mysterious crime involving the death of a neighbor's dog; in the process the emotional capacities of Christopher as well as his mother and father are revealed. Due to his disability, Christopher has a hard time expressing his emotions. Meanwhile, his father only expresses his emotions through rage and assertiveness, and his mother runs away from her responsibilities, avoiding her emotions. A psychological lens reveals that it is not just Christopher who has limited emotional intelligence but his parents as well. Their collective struggle to express emotions leads them to not be able to cope as a family.

The College Fed Challenge 2016: US Economic Analysis and Forecasts

Pierfrancesco Simonetti, Edward Brown, Victoria Perrotta, Patricia Nersten

Mentors: Meghan Mihal, Ph.D., Associate Professor of Economics, and Rossen Trendafilov, Ph.D., Assistant Professor of Finance

STAC sent its first team to compete at the College Fed Challenge this past fall. Teams are charged with determining optimal monetary policy using real-time



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BY LYNN AHRENS AND STEPHEN FLAHERTY

Sullivan Theatre
Thursday April 20th - Saturday April 22nd
8:00pm

Adults \$10 Seniors/Students \$8
Reservations laetore@sttc.edu 949-998-4144

Presented by special arrangement with Music Theatre International

23rd Annual
New York
Film Fest

New York, New York
April 8 - 17, 2017

Features
Early Deadline: Nov. 6, 2016
Late Deadline: Dec. 11, 2016

Shorts
Early Deadline: Oct. 23, 2016
Late Deadline: Nov. 20, 2016

www.newyorkfilmfestival.com

The New York Film Festival is accredited as a qualifying festival for the Oscars in the category of live action short films. The winner of the Grand Jury Prize Award for Best Narrative Short will automatically qualify to enter the live action Short Film category of the Academy Awards.

data analysis and forecasting for the Federal Reserve Bank (FRB). We provided an in-depth analysis of the current state of the economy, identifying and outlining important macroeconomic indicators with a focus on the FRB's dual mandate. Careful consideration was paid to addressing the zero-lower-bound problem, which would prevent future adjustments should a negative shock impact the economy. We used economic forecasting tools to determine policy implications for the FRB. After assessing the risks associated with each of the implications, we made a final recommendation for the FRB to keep the target Federal Funds Rate unchanged, between $\frac{1}{4}$ to $\frac{1}{2}$ percent. Our recommendation was accommodative in nature, primarily due to many risks at the time of the competition, and was predicted correctly.

Attitudes and Emotions: An Examination of the Impact of Anger and Anxiety on Attitude Strength

Anthony Mezzio

Mentor: Benjamin Wagner, Ph.D., Assistant Professor of Psychology

This study will examine the effects of experimentally induced emotions that have negative valence (anger and anxiety) on attitude strength. The study will consist of roughly 60 students at St. Thomas Aquinas College. Participants will be randomly assigned to one of three groups (anger, anxiety, or neutral control group). Self-report methods will be used to measure initial attitudes toward animal rights. Following this, either anger, anxiety, or a neutral condition will be induced through a writing task. Behavioral intention measures toward animal

VISUAL COMMUNICATIONS

Theresa McKenna *Creating a New Font Senior Thesis Poster* Illustrator

Erin Colgan *Once on This Island Poster* Illustrator

Samantha Piehler *Amir Hariri Poster* Illustrator and InDesign



rights will then be taken to indicate attitude strength. Finally, participants will answer a Need for Cognition Scale (Cacioppo, Petty, & Kao, 1984) to indicate how likely it was that effortful thought took place in regards to animal rights. It is hypothesized that those in the angered group will have stronger attitudes than those in the anxiety group, particularly when those individuals are high in Need for Cognition.

Is Social Media the Metaphor?: Social Media, Public Discourse, Culture, and the College Student in 2017

Jan Tapia and Sean Wilson

Mentor: Elaine Winship, M.A., Instructor of Communication Arts

Long before the advent of the Internet and the Social Web, Neil Postman and his predecessor Marshall McLuhan studied the effects of new technology on public discourse and culture. McLuhan’s “tetrad of media effects” and Postman’s arguments in *Amusing Ourselves To Death* offer guides to better analyze and understand what’s happening in American culture—and beyond—in 2017.

The increasing and seemingly insatiable desire for amusement and entertainment, coupled with the content limitations of the forms and tools of most social media, threatens to transform all public discourse into disjointed, decontextualized fragments of information, opinion, oddity, and/or absurdity, further eroding our ability to critically think.

St. Thomas Aquinas College presents the Laetare Players in



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by Lynn Ahrens & Stephen Flaherty

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Sullivan Theater
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**AMIR
HARIRI:**
under construction:
dimensional interventions

January 23 - February 19

Reception & Artist Talk:
Wednesday, February 1 from 4:30-6:30

**AZARIAN MCCULLOUGH
ART GALLERY**

St. Thomas Aquinas College, 1200 North Hill Street
Cotuit, MA 02542
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11 Longfellow Street, Cotuit, MA

College students, challenged with becoming effective communicators, critical thinkers, and socially engaged citizens, must begin questioning their social media habits and the nature, validity, quality, and quantity of what they subsequently consume.

Development and Analysis of Typeface Garamond: Creating a New Font

Theresa McKenna

Faculty Mentors: Matthew Finn, M.F.A., Visiting Assistant Professor of Graphic Design, and Nathaniel Amos Rothschild, Ph.D., Assistant Professor of English

This project involves the research of a specific font, and the creation and design of a new font. The research will focus on the Garamond typeface and its uses. The goal is to show how Garamond was used when it was first designed and what ideas it evoked during that time period. The research will also bring to light the uses of Garamond when it was first digitized, as well as what it evokes currently. The third part consists of an analysis of the new typeface that is designed. This analysis will describe the predicted uses for the new font, as well as what it elicits in its use. The new font is based off the original design of Garamond, so it will retain the basic shape. However, the new typeface will be simpler, while also adding small and clean decorative elements. The project will show how unnoticed yet impactful a typeface can be, and what minuscule changes can do to its overall feel and effect.

VISUAL COMMUNICATIONS

Clint Walker *Nike Subliminal Marketing* Illustrator



Plasma 11-Ketotestosterone Levels in the Female Convict Cichlid (*Amatitlania nigrofasciata*)

Abraham Gill, Megan Finnen, Aaron Stahl, Joseph Cooper, Breanna Lyn, Courtney Tello, & Duncan Kasibante

Mentor: Ryan Wynne, Ph.D., Associate Professor of Biology

Hormones are known to play a role in reproduction, aggression, learning, memory, and neuroprotection. Analysis of hormone levels in a variety of animals has shown a strong correlation between animal behavior, and changes in circulating hormone levels. The convict cichlid (*Amatitlania nigrofasciata*) has been extensively studied in relation to behavior; specifically courtship, biparental care, and territoriality. Recently, questions regarding hormone levels (specifically 11-ketotestosterone; 11KT) in the male convict cichlid have been asked. However, little is known regarding 11KT levels in females. The goal of the present study is to profile circulating levels of plasma 11KT in the female convict cichlid using a commercially available enzyme immunoassay. The examination of the circulating levels of 11KT is critical in determining the role hormones play in the manifestation of reproductive behavior in the convict cichlid.

Psych! How Clinical Techniques within Positive Psychology Endorse Capitalist Ideology

Brianna Weaver

Mentor: Craig Martin, Ph.D., Associate Professor of Religious Studies

Clinical techniques from Martin Seligman's positive psychology are analyzed as part of a superstructure, in a Marxian sense, endorsing a capitalistic economic system. Dr. Craig Martin builds on Thomas Luckmann's claim that personalized religion is replacing structured religion to fit the demands of a society with an increasing division of labor by identifying quietism or accommodation, consumerism, promotion of productivity, and anti-structuralism or individualism as the four themes frequently found in individual religions that support the existence of capitalism. Positive psychology techniques such as the three good things method, gratitude journals, gratitude letters, and positive case conceptualization embody Martin's four themes. Seligman himself acknowledges that positive psychology functions to alter individual perception rather than situations of exploitation, yet defends his practice with evidence of improved physical and mental health. Advocates and opponents of positive psychology differ in priority rather than understanding.

Conscientiousness as a Mediating Variable of Happiness and Procrastination

Courtney Gray

Mentor: Susan Marell, Ph.D., Professor of Psychology

Researchers have examined the ternary relationship between happiness, conscientiousness, and procrastination. There is a significant negative correlation between overall well-being and levels of procrastination, specifically when regarding measures of happiness. Similarly, there is a negative relationship between conscientiousness and procrastination. Researchers have also discovered that conscientious individuals report higher levels of happiness across the lifespan. Given the strength of the relationships between the aforementioned variables, the current study draws on the belief that conscientiousness will account for the variance between happiness and procrastination. Participants (N = 74) completed the Pemberton Happiness Index, Lay Procrastination Scale, and Ten Item Personality Inventory. Consistent with the hypothesis, conscientiousness accounts for 46.7% of the variance between happiness and procrastination. Previous findings of significant relationships between the three personality attributes were also replicated. Results suggest that personality factors such as conscientiousness are an important variable when predicting overall life satisfaction and work ethic.

3D Printing a Prosthetic Hand

Diana Zuniga

Mentor: Meghan Dewitt, Ph.D., Assistant Professor of Mathematics

Thousands of people, especially children, are unable to afford the prosthetic hands they desperately need. We study the process of 3D printing hands, looking into the mechanics required of such a limb and the designing of such, with a goal towards printing and then donating hands to those who need them in the local community.

A Sound Piece on Water

Members of the STAC Singers and the Laetare Players

Mentor: Evan Matthews, Ed.D., Associate Professor of Music

Water is the most important reason that our planet teems with life. All plants and animals need water to survive and thrive. Yet, the availability of potable water, worldwide is inadequate. Water, its availability and quality will be one of the major political issues of the 21st Century. This piece is a response to current news concerning water, including the DAPL Water Protectors, the Hudson River Keeper coalition and the Flint, Michigan water contamination crisis.



IGNITE

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