Psyche Inspired Silver Class

A Collection of Artworks

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Cover Art - Psyche Inspired Silver Class Interns

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Table of Contents

Introduction	5	The Asteroid	68
Foreword from Lindy	7	The Mission	94
Quotes from the Interns	9	Arrival	130
Mythology	10	Meet the Interns	140
The Team	38	Index	144
Journey	54		



See these QR codes?

These allow you to experience more Psyche content online. To start, open the camera app on your iPhone/iPad or download and open a free app, such as "QR Code Scanner" from the Google Play store for Android. Hold your smartphone or tablet over these barcodes. Once scanned, follow the generated link on your device to experience our interactive content online and enjoy.

What is Psyche Inspired?

Psyche Inspired is a program that brings undergraduate students from any discipline or major together to share the excitement, innovation, and scientific and engineering content of NASA's Psyche mission with the public in new ways through artistic and creative works.

Foreword From Lindy

Dear Friends,

A huge purpose of going to space is to show humanity how we can do better here on Earth – not just with science and technology but also with education, the arts, and caring for one another. This year, the Psyche team has exemplified these values more than ever, as we overcame the launch slip and prepared for October 2023 launch, and as we moved out of the global pandemic, and supported each other to progress.

The Psyche team celebrates the fact that everyone has a mix of qualities and ways that we try to apprehend our world; everyone has suites of techniques and tools that overlap. Our team of scientists, engineers, artists, managers, business analysts, educators, and coordinators believe that art and science are not on opposite ends of some spectrum, but instead are just two of many ways we try to understand the world around us.

From this concept and attitude comes our beautiful Psyche Inspired arts internship where students from around the country in any major, any kind of creative arts, any medium, apply to join us to create four original works of art during the academic year.

The Psyche team and I find the art so human and connecting and that it captures all the emotions that we all feel about this. The art energizes the team during challenging times, and it connects us all together. These mega-projects, space missions, include thousands of people and are so complicated that no single person understands how they work. It is a true team endeavor.

Our Psyche Inspired artists are a crucial part of communicating that complexity and that mystery and the importance of each member of the team. This book celebrates the many contributions to this mission by our 2022-2023 Psyche Inspired class, the Silver Class.

Linda T. Elkins-Tanton

Luda 7. Elkunfurt

July 6, 2023, Conway, Massachusetts

Quotes from the Interns

Gwenan Walker

"I hope people look at scientific discovery in a new light and how cool these discoveries are from an inherently human perspective"

Hope Elliott

"I really hope people can see themselves in me and through the art that I created, and realize that they are capable of doing the same thing"

Joshua Meyer

"Having the ability to work collaboratively and bounce ideas off of one another is so useful in any career"

Kemari Tinsley-Smith

"It was a really cool opportunity to showcase what I know scientifically, and what I can do creatively"

Maxine Stoenescu

"The biggest thing I want people to take away is that nothing is impossible"

Sloane Salitore

"Art and science are not totally separate things, they're very connected. Each of them would be lesser without the other"

Sunny Collins

"My biggest takeaway from being involved with Psyche Inspired is the opportunity to honor the people and soul of the mission"



Mythology

Early asteroids that were discovered, including Psyche, were named after gods and goddesses from ancient Greek mythology. After discovering the 16th asteroid in 1852, Italian astronomer Annibale de Gasparis named it Psyche, after the Greek goddess of the soul, who is often symbolized by a butterfly. Because Psyche was the 16th asteroid to be discovered, it is sometimes referred to as (16) Psyche.

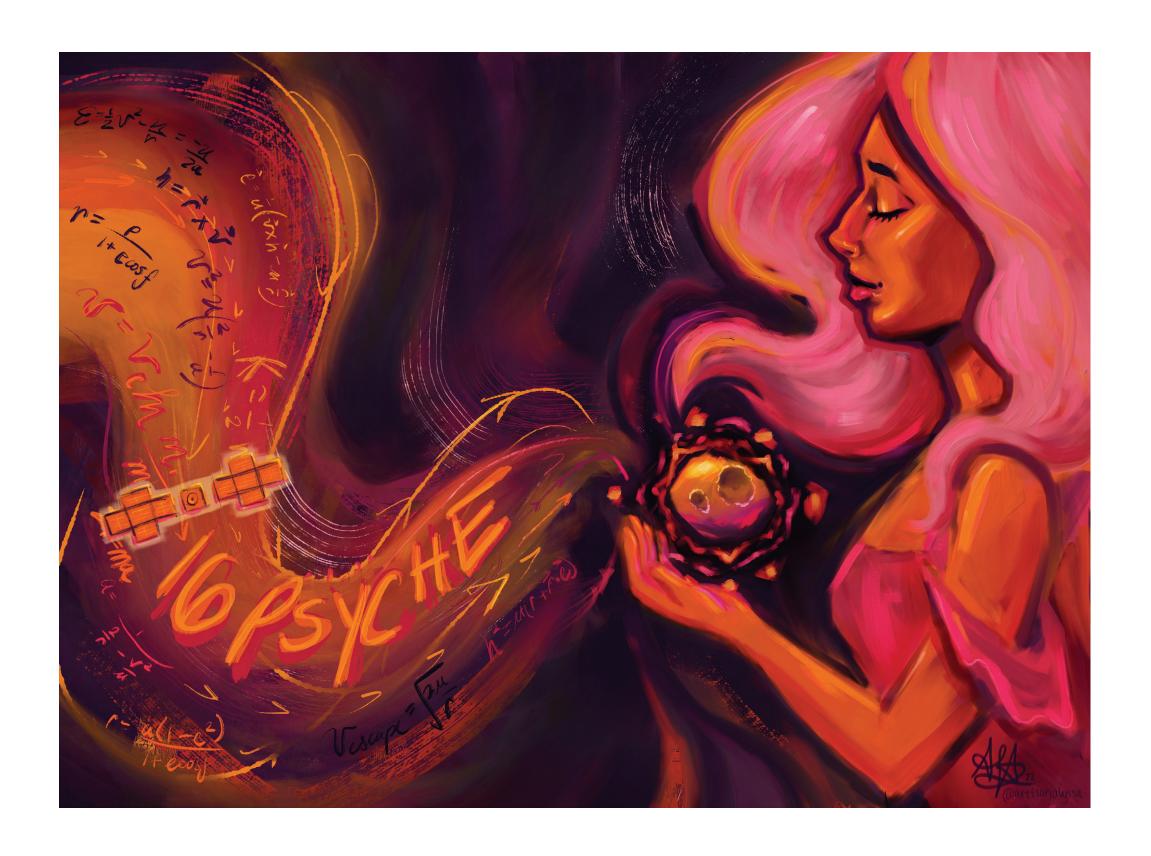
Soul of Psyche

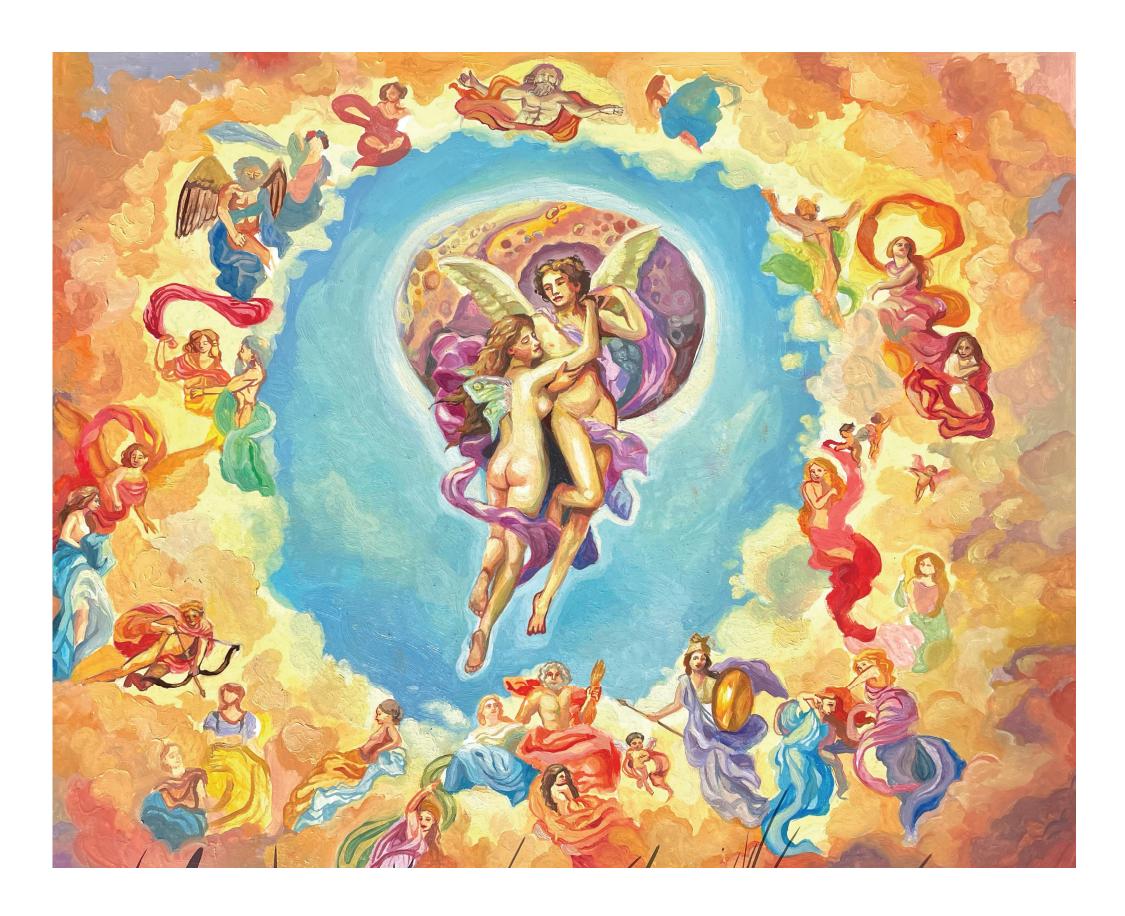
Alyssa Armstrong Digital Painting

In "Soul of Psyche", the goddess, the asteroid, and the spacecraft meet at the intersection of art and engineering. Through vibrant colors and expressive digital brushstrokes, the spacecraft is propelled by equations to meet the goddess Psyche as she presents her soul, the asteroid. The Greek goddess of the soul could hold the secrets to both her core and ours.

My inspiration began with color and myth. The Psyche badge inspired me to create a character design of the goddess Psyche. Her story is my favorite because it is one of the few Greek myths that does not end in tragedy. I wished to represent the goddess' hope, perseverance and beauty in the design.

Using thumbnail sketches, I experimented with combining the goddess, the asteroid, and the spacecraft in one composition. I wanted the painting to have a sense of excitement while keeping a balanced undertone. I also aimed to represent myself as an engineer and an artist to show that the human psyche is not complete without both science and art. Many think one must choose, but both are necessary for the survival of humanity.





The Origin of Spaces

Gwenan Walker Oil Painting

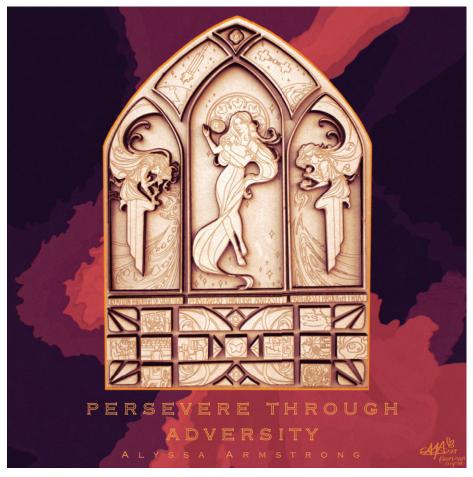
This piece was inspired by the classical Renaissance paintings of Greek and Roman gods and goddesses, as well as religious works of the same time period. Taking reference from ancient Greek mythology, Psyche and Eros' love story as the god of love and goddess of the soul have otherworldly implications (even on the ethereal plane), embodying fundamental attributes of humankind and representing a power that even Zeus, the king of the gods, often feared. Their significance in folklore is reflected perfectly in the Psyche asteroid's significance to space exploration, as NASA's expedition may provide insight on the nature of our solar system's formation and all of the planets within it. Psyche's placement at the center of the piece, encircled by the deities of Greek and Roman mythology that embody the different planets of the solar system, is meant to represent that.

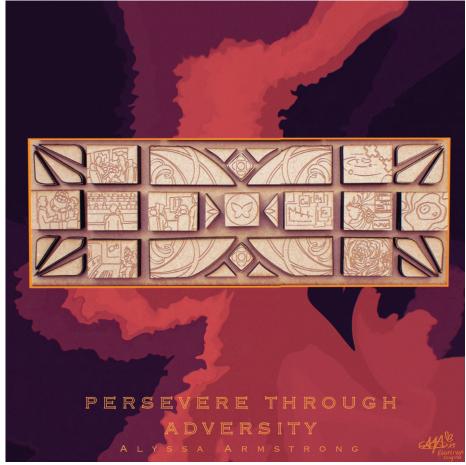
The Ethereal Psyche: Goddess and Asteroid

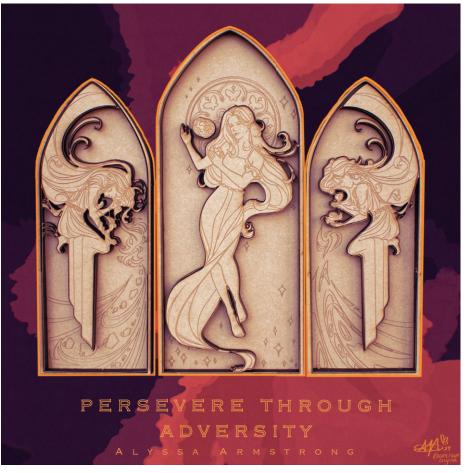
Emily Stabilito Cotton Fabric

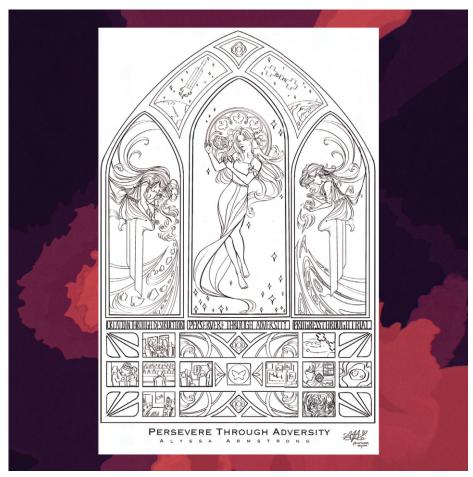
Fabric quilt of the goddess Psyche in Psyche Mission colors. Mixed patterns denote the mixed-metal nature of the Psyche asteroid, and goddess's face shape mimics that of the formation itself. Celestial prints mixed with more organic patterns create a sense of grounding and raw naturalness while in space. Inspired by ancient Greek tapestries made by women to depict their gods and other objects of honor and interest.











Persevere Through Adversity

Alyssa Armstrong *Laser Cutting and Digital Art*

The myth of Psyche, the history of the asteroid formation, and the stories of those behind the mission are intertwined into the piece "Persevere Through Adversity." Each of the 16 panels represent the universal human experience of trials, persistence, and eventual success. This artwork was drawn digitally and laser cut on MDF. It was inspired by the Art Noveau movement and cathedral stained glass.

Heart and Soul

Gwenan Walker

Digital (Clip Studio Paint)

This piece ties directly into the Greek Mythology behind Psyche's name, similarly to my previous piece. Upon taking on her immortal form, Psyche became the goddess of the soul, with the butterfly becoming both her winged form and the Greek depiction of the human soul itself. Since the Psyche asteroid is believed to be part of the metal core of an ancient planetesimal, I wanted to depict Psyche receiving her gift of the soul from the Earth goddess Gaia, portraying how knowledge of our own core could help inform Psyche's past.





Creation of 16 Psyche

Joshua Meyer

Digital Painting / Procreate

For my third piece, I wanted to create an illustration based on the mythology of Psyche, and depict her in a dramatic yet delicate scene being illuminated by the 16 Psyche asteroid behind her. She is also being surrounded by butterflies as they are flying towards the asteroid. Psyche is often associated with butterflies which is why I included them in this piece. I painted this piece digitally using the Procreate application. I created thumbnails, multiple drafts, until finally deciding on a composition which I then brought to completion.

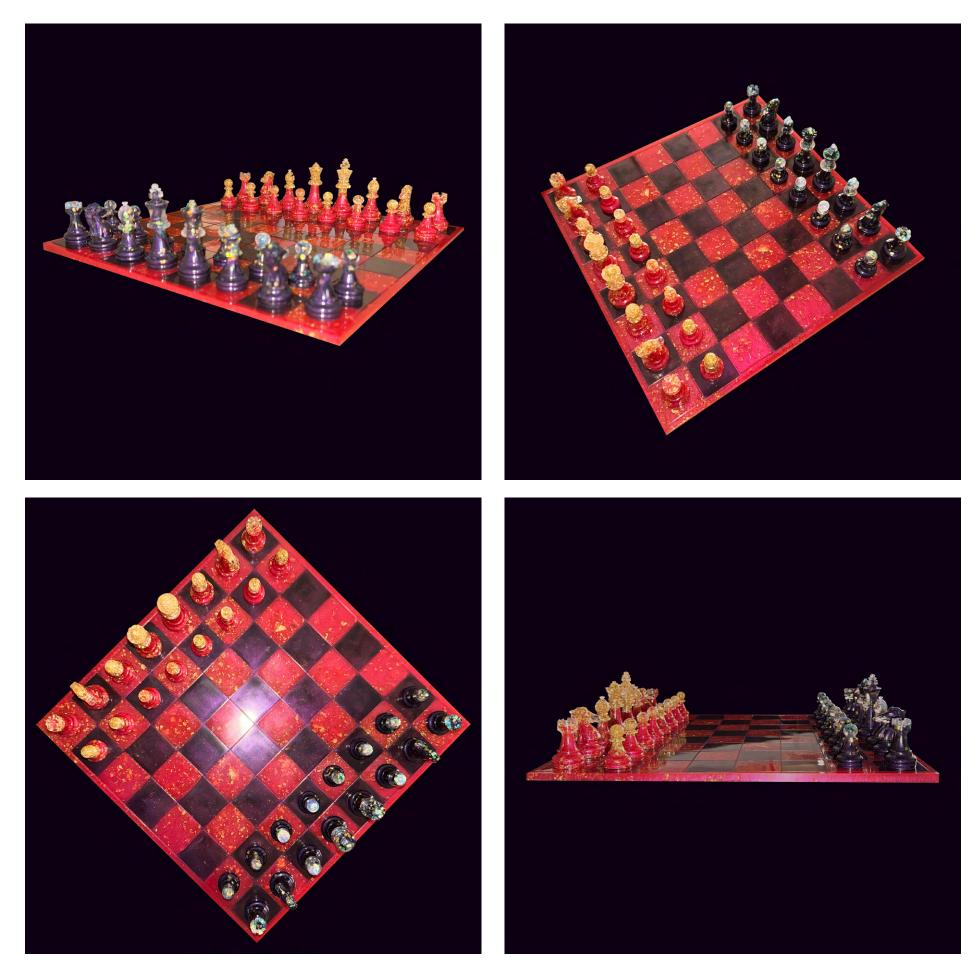
The Fall of Psyche

Maxine Stoenescu

Ink Liner Pens, Gouache

"The Fall of Psyche" was greatly inspired by the mythology behind Psyche, specifically regarding her trip to the underworld. Psyche is depicted falling gracefully through greenish-gray cavernous depths. This piece was made to encompass the emotions behind Psyche's trials and tribulations, and resonate with the Psyche team's emotions of a delayed launch. Psyche is depicted with a certain grace and beauty about her as a means of showing that there will always be a light within the darkness, and something you always learn from a failure.





Mythology

The Trials of Psyche

Abigail Miller

Epoxy Resin, Mica Powder, and

Gold Flakes Cast in a Silicone Mold.

'The Trials of Psyche' is a custom chess set inspired by the goddess Psyche's story. Made from epoxy resin and mica dyes as well as gold flakes and glitter, this art piece embodies the life of Psyche from her mortal birth to her rebirth as a goddess. Like chess is played in turns, Psyche faced similar trials from the hands of Aphrodite. There are many ways to interpret chess as a metaphor for Psyche's life. For example, each piece on the board is indicative of her journey; her husband Eros as the knight who saves her from the underworld, her own royal parents as the king and queen. The colors chosen in this project are inspired by the Psyche color palette as well as the struggle between Psyche and her enemies. This juxtaposition of light and dark, represented by the pink-gold and dark purple-silver pieces, is indicative of the struggle between good and evil forces in her life.

Psyche's Hold

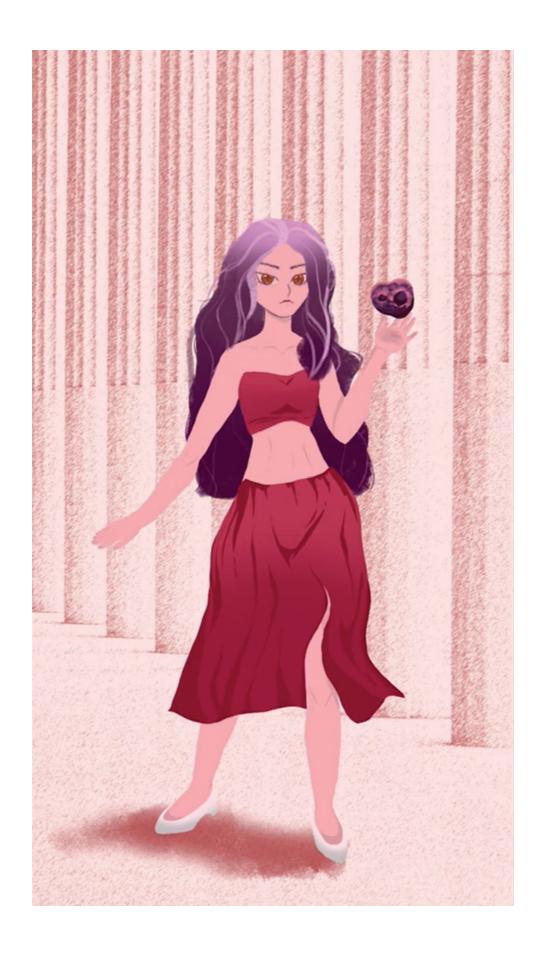
Danitza Govea

Digital Art, Photoshop, After Effects

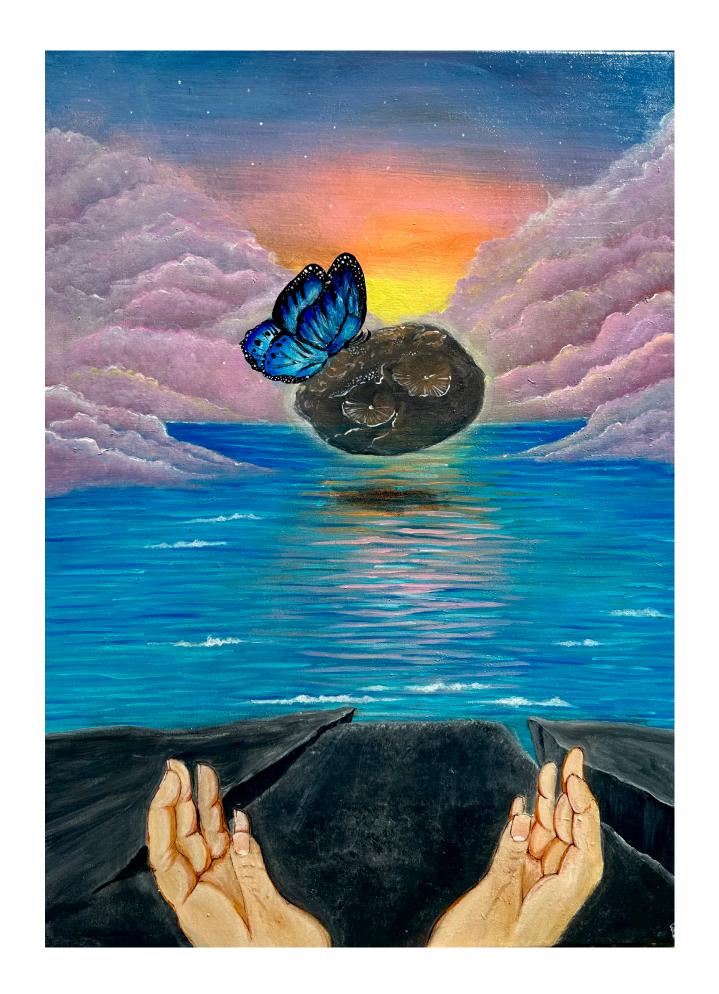
Psyche's Hold is a nod to the Greek mythological story of Psyche. Despite facing many trials, she holds onto her heart with a sense of confidence. The heart carries all her ambitions and shows that she is pushing toward her goals, represented by the Psyche asteroid.

The digital art animation features the Psyche goddess holding the floating asteroid inside a Greek building. All the skills I learned from previous projects led up to this point of trying something new. Being inspired by video game splash art, I created a simplistic version of that to highlight the character I created.

This was created in Photoshop by drawing the goddess and then splicing her into separate layers, then transferring her into After Effects to lightly animate. The process was split into a few weeks consisting of finalizing the drawing, watching tutorials on how to separate the different elements of animation, practicing animation tutorials, and then combining all these to create the final product.







A Gift from Beyond

Alana Negrón Díaz Acrylic Paint, Paint Cover, Canvas

For this third art piece, I was very inspired to make a scenario where Psyche was gifting us the Psyche Asteroid. Through the journey of this project, we were able to have more insight on the Psyche mission and at times it feels so close yet so far, sort of a hard to get gift from beyond. The main idea was to create the goddess Psyche gifting us the asteroid, but throughout the project it seemed like a lot of elements that could come together with the butterfly. In one of the meeting with David Seal we had the opportunity to learn the story about Psyche and knew I wanted to represent her, the goddess of soul, also represented as a butterfly. Here a Blue Morpho butterfly is on top of the asteroid on its way to the hands of the viewer to deliver the gift, which I wanted it to feel like it could be going to anybody. At first I was incorporating a silhouette of an astronaut but I didn't want to define a specific person and that's when I came up with the hands waiting to get the gift. That was the general concept of the painting.

Now for the execution, I probably changed this canvas around 4 times. I wanted to create a very colorful and mystical setting to present the Psyche asteroid. I used acrylic painting as the medium for project 3.

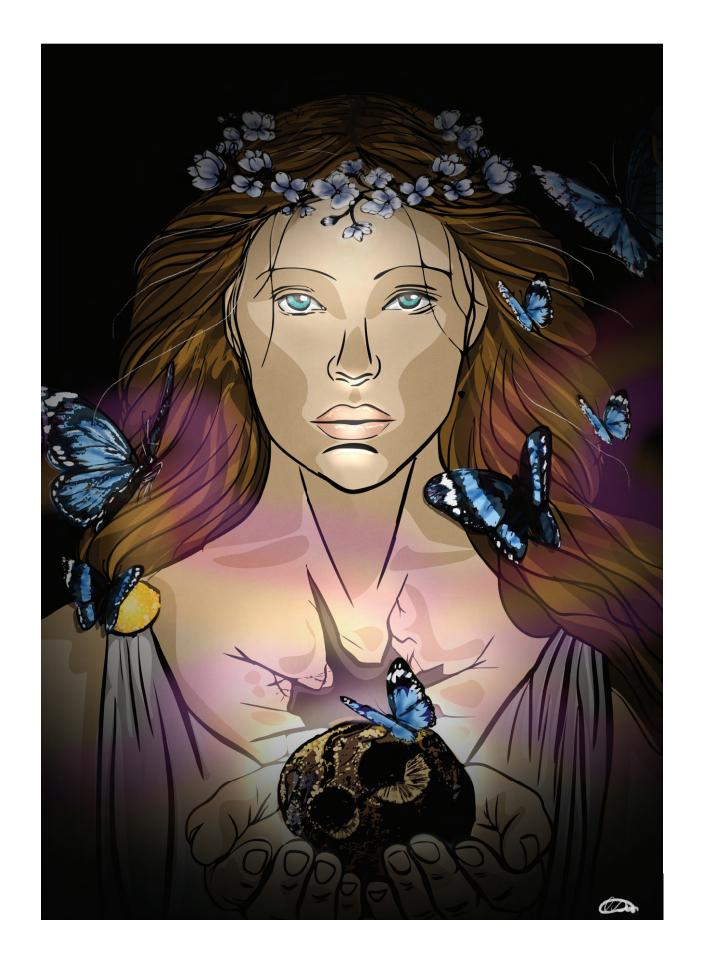
This project was very important since I hadn't painted in a while, at such scale. It was a very fun project.

Soulful Gift

Alana Negrón Díaz Vectornator/ Procreate

For the fourth and final art piece, I wanted to transmit a mysterious and intriguing setting where Psyche, the goddess of the soul, is giving us a part of her essence, her soul. Her essence turns into the Psyche asteroid taking with it her light, to commemorate her resiliency. In the art piece we have the goddess Psyche ripping a part of herself, her soul, turning it into a physical form into what we now know as the Psyche asteroid. I wanted to bring an eerie aspect in what it would be her broken chest, sort of representing her story and the evolution of the asteroid with such particular attributes. They both have been through tons of circumstances but they still remained strong at the end. The butterflies represent the beauty out of the bad circumstances. In this case, the turning point in her story, where Psyche can finally be herself. For the asteroid it represents the resiliency of the many years of history that make way for a whole new era.

For the medium, I used Vectornator for the outline and sharper effects and for illumination and other details, Procreate.





Daughter of the Air

Gwenan Walker Gouache, Watercolor

Daughter of the Air was meant as a piece that explored Psyche's mythological story in conjunction with that of Hans Christian Anderson's Little Mermaid, as well as the significance that the structure of the Psyche asteroid has when compared to the earth's own core. In the original story, the Little Mermaid's ascension to become human concludes with her transformation into a Daughter of the Air, as a way to earn her soul as a spirit wandering the earth performing good deeds. Since life is believed to have originated from hydrothermal vents that are fueled by the heat from the earth's core, the ascension of Psyche in this painting is meant to depict humanity's evolution and ascension into space from the early beginnings of life, coming full circle to explore objects like Psyche that could potentially inform us about the formation of earth and all that came after.

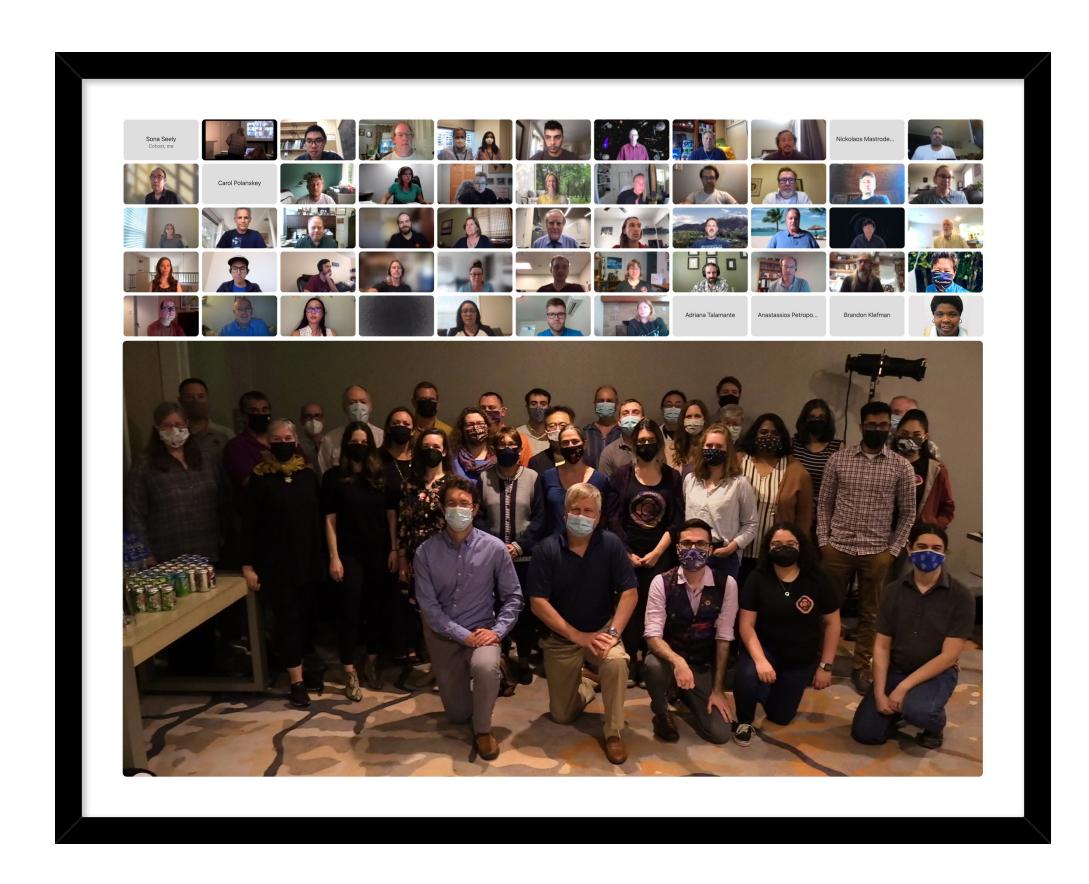
The Heart of it all

Gwenan Walker

Digital; Clip Studio Paint

This piece is an extension of my previous project, demonstrating how life's origin in the seas has come full circle as humans explore outer space to learn details of our own planet's beginnings. Throughout this internship, I've been fascinated with the larger implications that the Psyche asteroid can have for the formation of our solar system, and particularly the formation of our own planet's core. As we as a species begin to explore the further reaches of the solar system more and more, it feels fitting that our discoveries will often lead us back to our own origins, studying the formation of the core that was the source of energy for the first life on earth.





The Team

Initially, the Psyche team was composed of five individuals, which grew to about 140 by the time of the site visit from NASA in 2016. The site visit is an intense, highly technical in-person review done by a select group of science, technical, and industry experts. They review every detail of the proposed mission, from concept and design, to execution and science application, as well as how the mission personnel from different institutions work together as a team.

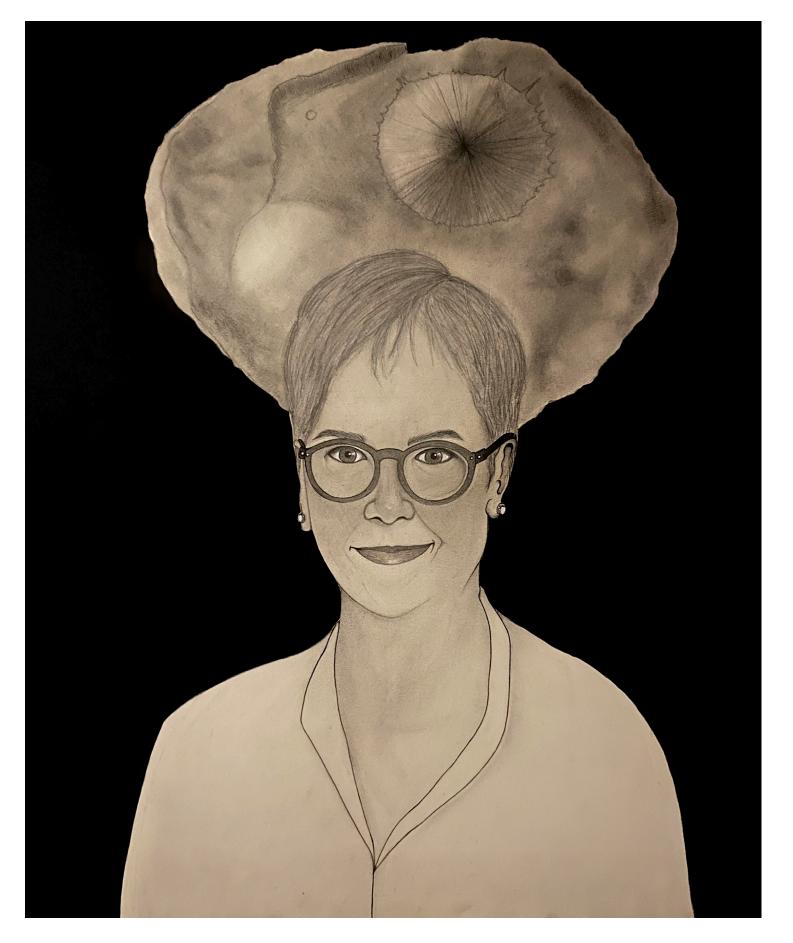
As the mission continues to progress, more team members are added as needed. Currently, the Psyche team is comprised of many hundreds of individuals and seventeen different partners with a variety of specialties, including science, engineering, management, business, outreach, and education. Each member of the Psyche team plays an important role in the mission, ensuring that the mission proceeds on schedule and achieves its mission goals and objectives.

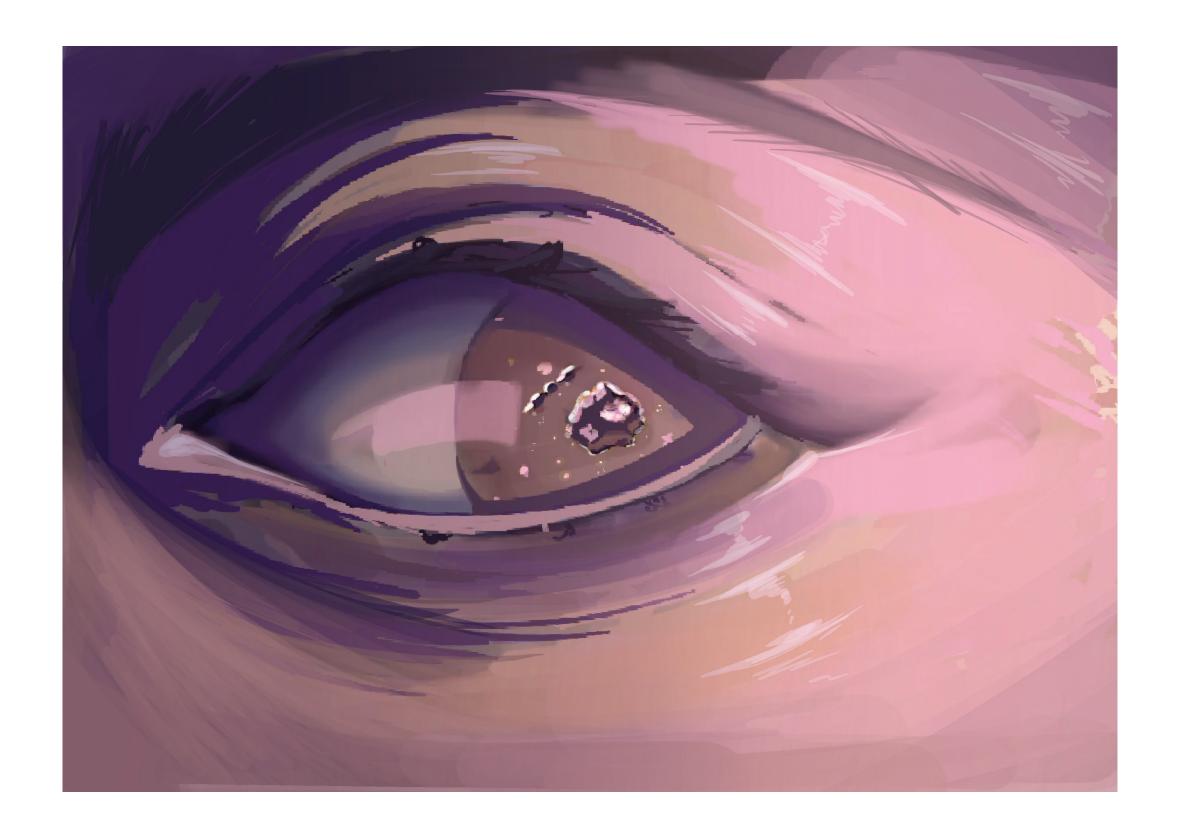
Lindy Elkins-Tanton: Psyche

Hope Elliott

Graphite and Pens on Paper

I created a formal portrait, drawn on paper, of Lindy Elkins-Tanton. Her story and accomplishments are inspiring and monumental. I highlighted her for my first project because her story needs to be heard. Many people would benefit from seeing what she has done and knowing they could do it, too. I have a lot of interest in renaissance portraits and wanted to take elements of that. I wanted Psyche 16 to be placed as a halo would in this style of painting. The placement of the asteroid is referenced to this and the literal meaning of "psyche". The simplicity is meant to push people towards the details and Dr. Lindy, herself. This was all created using graphite pencils, pens, and paper.





Psyche Vision

Joshua Meyer

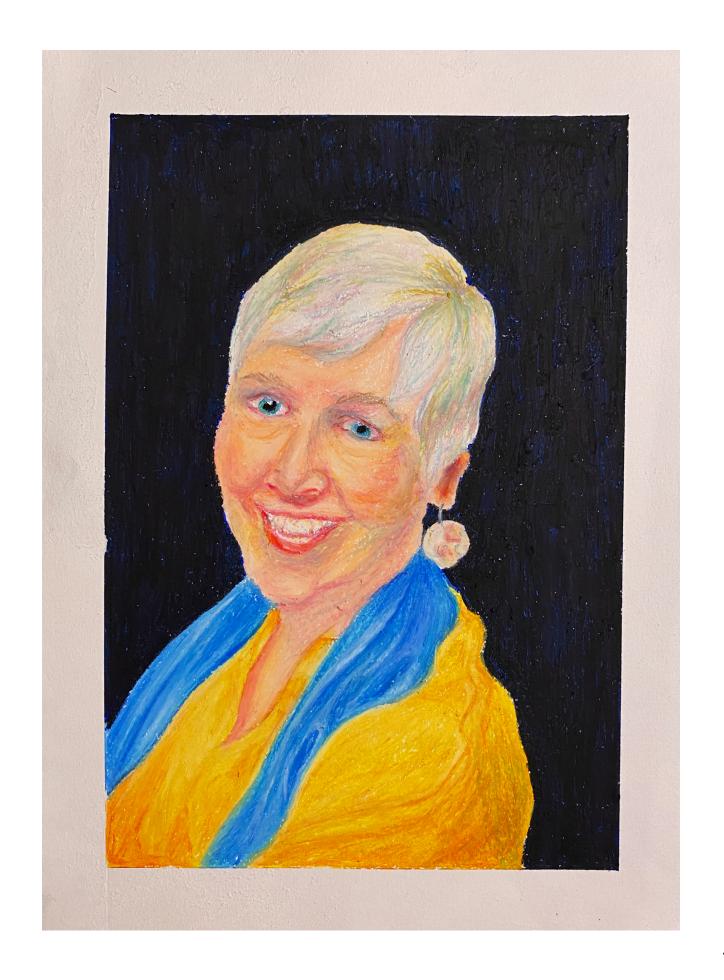
Digital Painting / Procreate

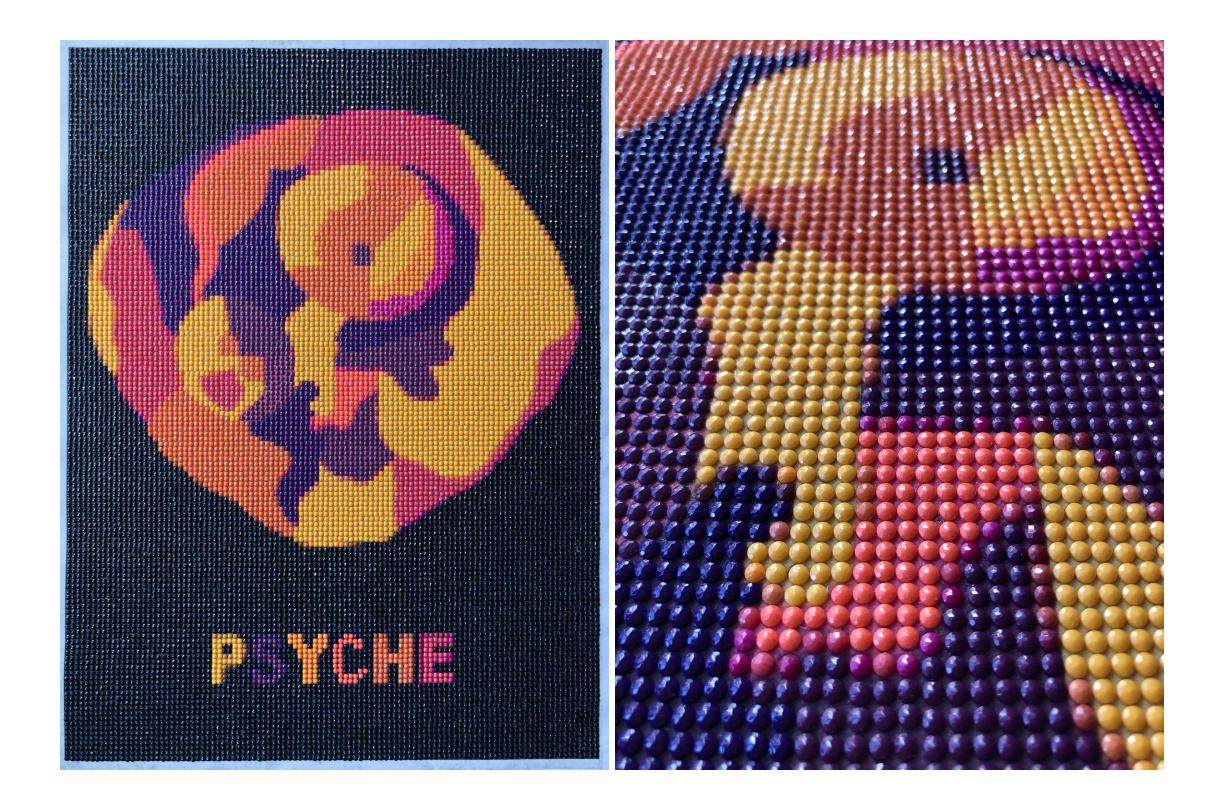
This piece, which I've titled "Psyche Vision," represents the drive and motivation being put into the Psyche mission, and keeping our eyes set on the ultimate goal. To represent this, I drew a human eye, using the color palette of the Psyche mission, and in the eye's reflection the Psyche asteroid and orbiter are visible. I wanted to emphasize the connection between humans and our instinctive curiosity and drive, which is why I placed the asteroid in the position of the eye's pupil. To create this piece, I used the Procreate application, where I drew a rough sketch of my composition. I then blocked out the parts that would be in shadow and the parts the would be in light. I wanted the right side of the image, the side to which the pupil is looking, to be illuminated with light to show how Psyche is a source of inspiration and motivation. I used the appropriate Psyche mission colors for the light and shadow, and finished the piece by adding highlights along various portions of the skin and the eye/asteroid.

Doctor with a Mission

Sloane Salitore *Oil Pastel*

"Doctor With a Mission" is a tribute to Psyche's principal investigator, Dr. Lindy Elkins-Tanton. An homage to Johannes Vermeer's "Girl With a Pearl Earring", this piece shows Dr. Lindy with a pearlescent Psyche-16 asteroid, and celebrates all she has done for this mission and more.





Psyche Diamond Painting

Alexa Hugenberg *Diamond Painting*

This diamond painting showcases the Psyche asteroid made up of thousands of individual resin rhinestones, all of which represent the people who have worked on the Psyche mission. The shiny finish reflects the high likelihood of the asteroid containing large amounts of metal. The colors reflect the official NASA Psyche Mission's color palette. Each rhinestone was meticulously placed by hand.

The Bones of Psyche

Sunny Collins

Screenprinting, Linocut,

Pen and Ink, Canvas, Marker

The Bones of Psyche represents our humanity in the mission. Through Psyche we will hopefully gain further insight into Earth and it's core, and therefore how life formed. The mysteries behind Psyche are as much a part of it as we are, which is why the asteroid is portrayed as the human skull with the satellite flying in to observe it. I wanted this to be tactile, a bit messy and fun, so using screen printing, linocut, marker, with pen and ink felt appropriate. Plus, I had never done screen printing before and it allowed me to experience something new creatively!

For the process, I took a photo of my initial proposal sketch and drew over it in the iPad app called Procreate. I printed out the drawing and traced it onto the screen I used. After I had traced all of the areas I wanted to show when rolled with ink, I used brushes to apply drawing fluid to them. Once all spots had been painted and dried, I rolled screen filler fluid over the majority of screen. Screen filler, when dry, fills in holes of the screen that you do not want your ink to show. Once it had dried, I put my screen under cold water and washed the drawing fluid away which left the screen filler. Patting everything dry I laid my canvas down, put my screen on top of it, and lined the top of my image with ink. Using a squeegee, I pulled down, up and side to side across the screen to coat my canvas underneath. Pulling one side of my screen up, the graphic style image was revealed on the canvas below.











Psyche Team Collage/Poster

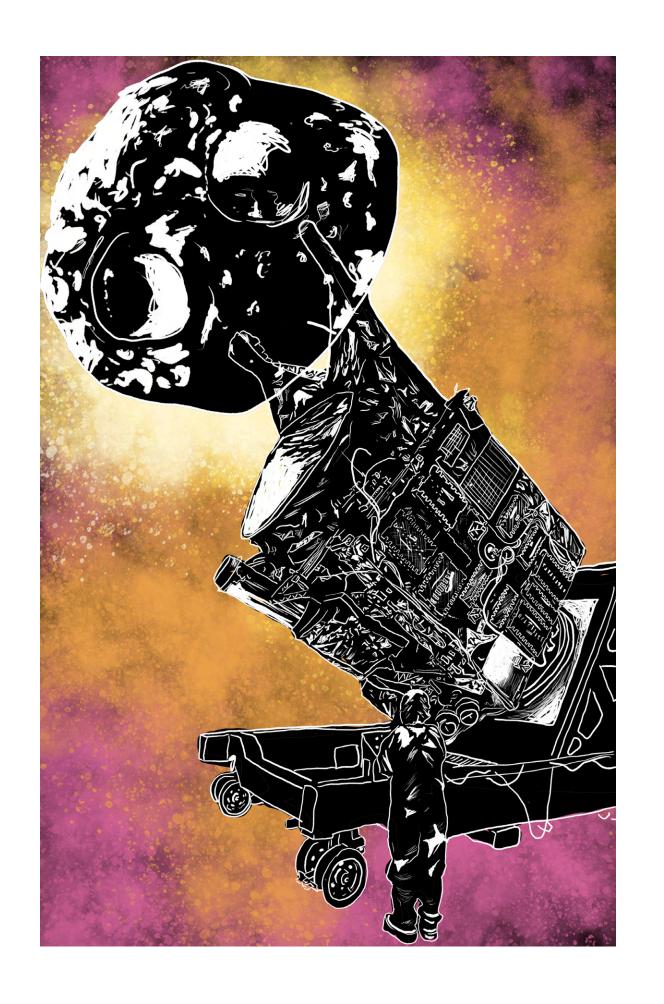
Emily Stabilito *Digital*

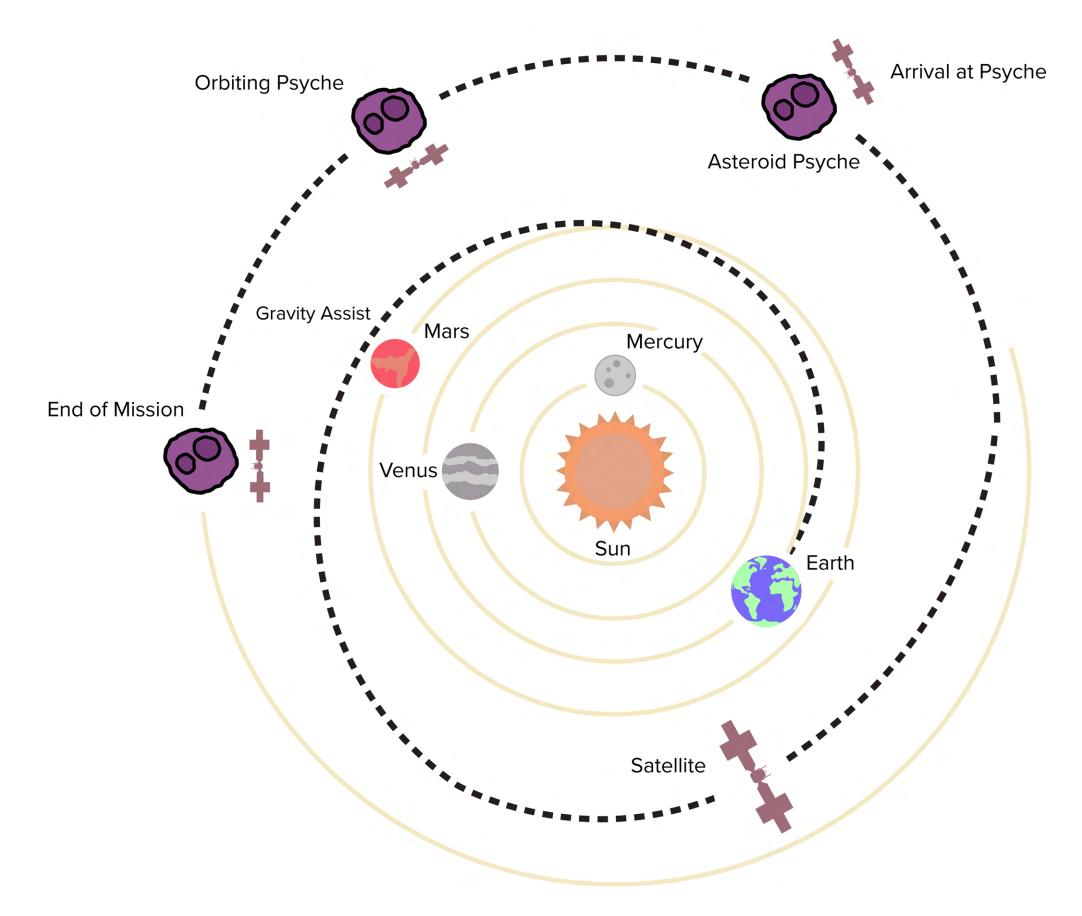
This mission is only as great as the people behind it! Here's to the Psyche Team and their incredible spirit and wisdom.

Art of the Craft

Dante Raso *Digital*

For this project, I wanted to focus more on the scientists, engineers, and programmers who worked hard on the construction of the craft, the science behind the instruments, and calculations of space travel. I chose to work from a photograph of the Psyche craft being constructed, overlayed with my interpretation of the asteroid in the background. I chose to include the color scheme from the Psyche mission itself. I did this piece digitally using Photoshop.





Journey

After separating from its launch vehicle, the Psyche spacecraft will undergo a 90-day operations checkout before traveling to the asteroid using solar-electric (low-thrust) propulsion. On its journey, the spacecraft will be heavily monitored, communicate with Earth, undergo operational readiness tests, have its instruments calibrated, and undergo navigation and trajectory calibration as needed. The spacecraft is projected to complete a Mars flyby and gravity assist prior to arriving at the asteroid.

Journey of Metal

Danitza Govea

Digital Poster, Illustrator

This digital piece was inspired by the multiple orbits of the mission and the orbits of the planets that are closely related to the Psyche mission. By displaying the multiple orbital discs in a monochromatic color scheme I hope to guide the viewer's eye to view the entire piece and gain their curiosity with the implemented QR code.





Greetings From the 16!

Kemari Tinsley-Smith Vector Art

"Greetings From the 16" is a retro Psyche postcard. I wanted to incorporate pops of colour in order to draw attention to the postcard. I incorporated the Psyche coloured stars so that the view can get an 80's arcade floor feel.

Journey to a metal world

Alana Negrón Díaz Procreate/Mental Canvas

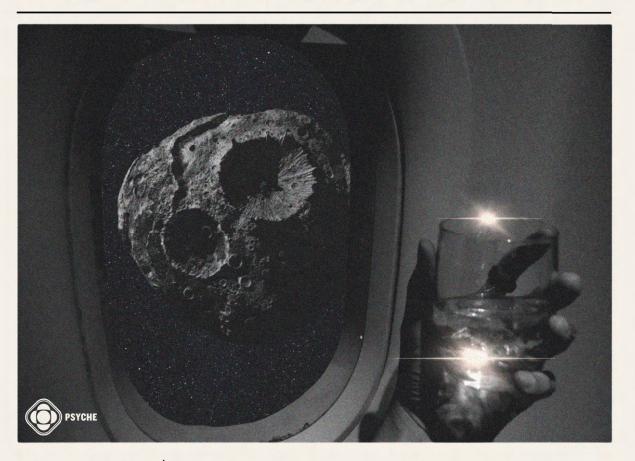
"For this art piece, I was inspired by the journey of Psyche across space, from the creation of the asteroid to the mission to study it. In the video, it starts with an assumption for the origin of the Psyche asteroid, which is thought to have originated from violent impacts, giving way to an asteroid with such peculiar aspects. The fact that many years have passed and it's out there holding a history to be discovered makes this mission quite thrilling.

The mediums used for the art piece were Procreate and Mental Canvas. I've used Procreate for a previous project, but Mental Canvas was the medium I focused on for this second project. First, I drew the separate layers in procreate and saved them as PNG images. After using Procreate, I uploaded the layers to Mental Canvas where I was able to create a 2D animation with the 2D images and make them pop within a 3D space to provide an interactive and immersive effect. "





Direct Flights From Earth to The Gateway of The Main Asteroid Belt.



CELEBRATING THE 100th **ANNIVERSARY** OF THE **PSYCHE** MISSION'S **ARRIVAL AT** 16-PSYCHE...

In Autumn 2129, NASA is pleased to offer full-service, direct flights to the metal world, (16) Psyche. The gateway to the Main Asteroid Belt with connections to lo and Europa*, (16) Psyche was Spaceport is a gem of space first visited by NASA's Psyche Mission in 2029.

A mysterious world made up of a variety of metals, (16) Psyche helped researchers gain a better understanding of planetary formation. Today, Psyche's Interplanetary travel in the main asteroid belt region.

*Connections to Kuiper Belt Stations Not Available From PIS

Pscyhe 2129

Cristian Ponce Photography / Graphic Design

I have always been inspired by travel and the romantic feelings that it inspires. When I was a child, before wanted to be a scientist, I wanted to be a train conductor. Some of my favorite art originates from the depictions of travel by train during the boom in Art Deco style and the artistic romanticizations of flight during the Jet Age. In Psyche 2129, I wanted to imagine what similar art/advertisements might look like during the golden age of space travel. The sparkling drink in a glass cup and the ring attempt to include elements of prosperity in the piece, similar to comparable work of the Jet Age.

Wire We Going to Psyche

Hope Elliott

Crochet with Metal Wire, Rocks

For "Wire We Going to Psyche" I crocheted the body of the asteroid using different gauges of metal wire. Once the shell was completed, it was filled with different types of river rocks to compliment the wire and add dimension. This allows the model to have bumps, ridges, and dips. The model was filled with rocks inside the glass vase to also help it hold its shape and be easily viewed. Rocks and wires are also littered throughout the bottom of the glass vase. The model was created to give people my creative take on Psyche 16 and to invite them to explore it. The model can be felt and touched through the opening of the glass bowl. This was included to help explore the metallic and rocky features of the asteroid easily. I was inspired by @Izana.art on TikTok to try a new method of crocheting with wire. I have loved depicting Psyche in different mediums throughout this program, and I thought that this could be so well applied to Psyche 16.











Mission Accomplished

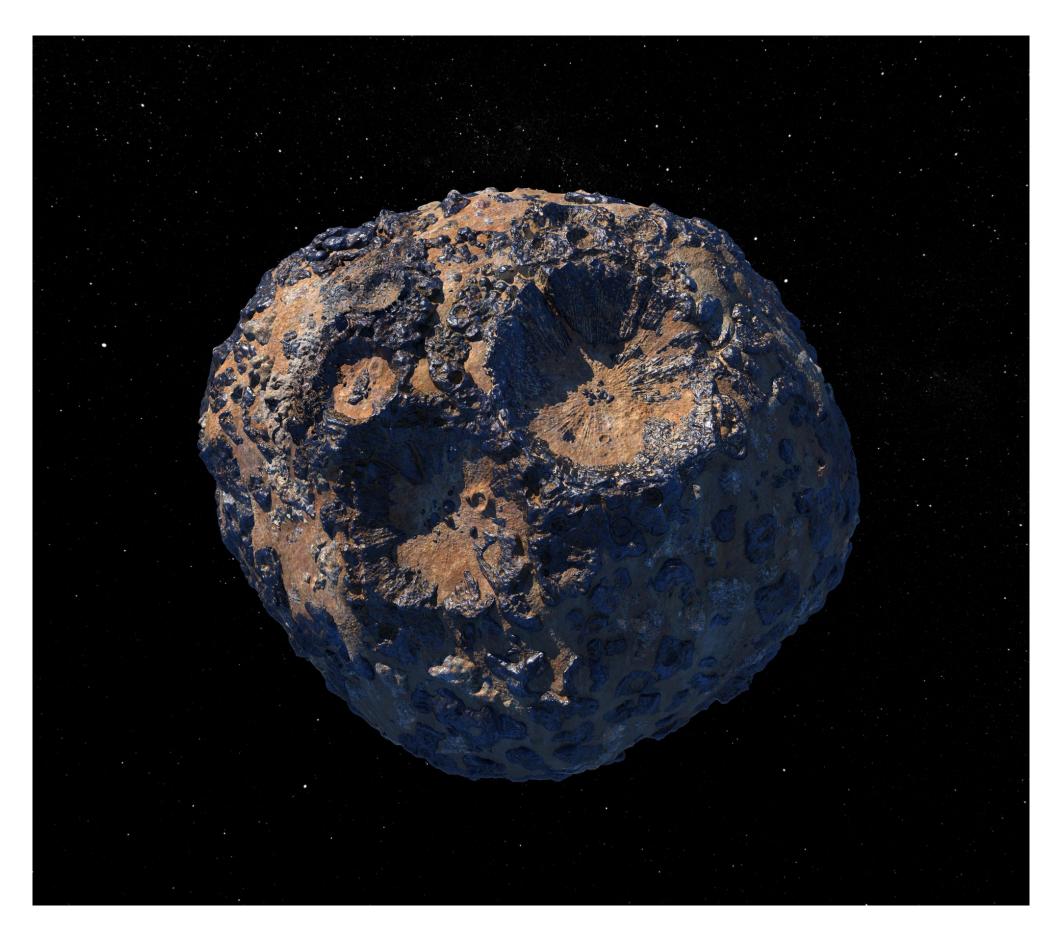
Joshua Meyer Digital Painting

My idea for this piece was to depict an image that represents the completion of the Psyche mission. Although this mission will not be sending astronauts to the asteroid, nor is the asteroid small enough to fit in the palm of a human, it is a symbolic piece. It symbolizes the ultimate goal of finally reaching the asteroid. I decided to make the asteroid illuminate a colorful array, which I chose to be colors similar to those of the Psyche Inspired logo. This piece started with a rough sketch, which I then refined into a draft and ultimately a final version. I painted it digitally using Procreate and a variety of different brush texture and colors.

The Asteroid

Asteroids themselves are thought to be leftover material from the formation of the solar system. Therefore, asteroids can be composed of a variety of elements, offering scientists unique opportunities to study our solar system's formation. One such unique asteroid is (16) Psyche.

If Psyche were a perfect sphere, it would have a diameter of 140 miles (226 km), or about the length of the state of Massachusetts (leaving out Cape Cod). It would also have a surface area of about 64,000 square miles, or about 165,800 square kilometers. However, its size isn't the reason for our fascination with this body. Rather, Psyche is unique because scientists believe that this asteroid may be the core of a planetesimal that was bombarded, stripping the mantle away and leaving exposed core material. No one has seen the Psyche asteroid yet, so we will not know what it looks like until the spacecraft arrives, but many of the student artists have drawn inspiration from several artist conceptions on the Psyche website.





The Asteroid

Psyche in Stages

Sunny Collins
Silicone Geode Coaster Molds, Epoxy Resin, Various Resin
Dyes, Metallic Foil Flakes, Holographic Foil Flakes, Electrical
Wires, Nuts, Rubber Bands, Magnetic Tape

For my first Psyche Inspired project, I created 4 abstract sculptures representing the various storylines of not only the Psyche mission but the asteroid itself. I really wanted to portray the colorful, expressive, technical, exciting, useful, and hopeful nature of the mission through these four interpretations. At first, my plan was to take a planter saucer, fill it with electrical wire, bolts, nuts, screws, nails, and magnetic tape all being manipulated to look like Psyche. Additionally, I wanted to use materials that represent the satellite being sent to analyze Psyche. I quickly realized that keeping all of those small pieces together would be difficult without some sort of bonding agent. Resin came to mind as a successful way to keep all of the materials together while also being able to still see everything clearly. From there I thought it might be better to scale down and expand the interpretation to 4 distinct yet cohesive aspects of Psyche. Geode resin molds for coasters felt like the perfect way to portray the rocky exterior. I used three different geode molds which I thought would add some visual diversity to the pieces as well as cater to the idea that we do not quite know what Psyche looks like except for its size and 2 craters. That is why I also thought it was important to showcase both sides of the coasters. Each piece looks very different on either side, one more fluid the other more graphic.

Astronomy's Rebirth

Alana Negrón Díaz *Procreate*

The name of this art piece is "Astronomy's Rebirth". I've always been fascinated by the numerous elements and natural creations that surrounds us. Astronomy's rebirth is an inspiration of the creation of everything. In this art piece there's a sort of supernova in the shape of a face giving life to planets, the sun, stars, and of course, the Psyche Astroid. The shape of the supernova is a woman's face giving life to the universe. I decided to add the woman element since it's kind of magical how women give life to humans. It's amazing how humans are made from a small cell turning into what we are today. From the creation of life to the creation of the universe, the science behind it, is still a mystery and at times it seems kind of magical. I wanted to incorporate these two things since I believe we are made out of the smallest and simplest of elements, meaning that we are all connected.







The Life Core of Psyche

Abigail Miller Papier Mache

The Life Core of Psyche explores ideas of early planetary development and how exploration of Psyche can reveal secrets of our home planet. This piece was first inspired by the suspected nickel-iron core of psyche that is thought to be the basis of terrestrial planets, however development of the project over time revealed themes of life on Earth on the role of our planetary core. The Life Core of Psyche is made with a papier mache base, and several layers of paint applied with varying techniques for optimal texture. The next layer is composed of synthetic leaves and flowers to represent how life can metaphorically grow from the craters of an asteroid. Painted stones have been added around the base of the flowers to create dimension.

The Metal World Vintage Poster

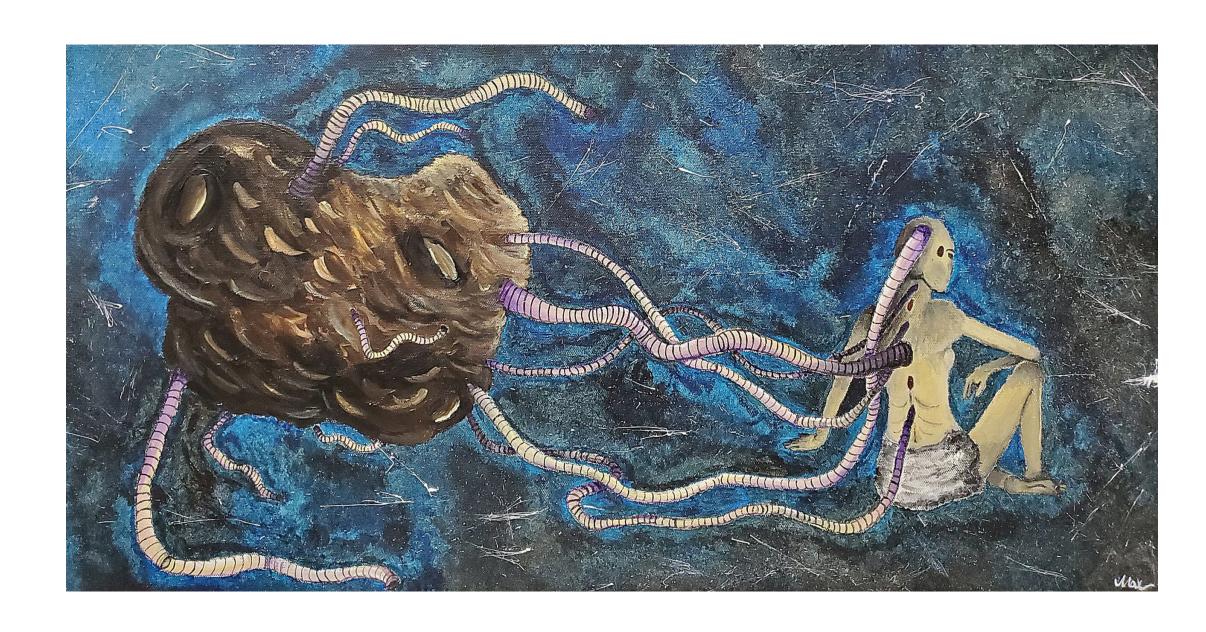
Mary Helen Lewis

Digital Painting / Procreate

For this project I took a lot of inspiration from vintage style space posters and tried to create one for the Psyche asteroid. I also decided to add a small animation that shows the asteroid partially rotating to show off a few of the features of Psyche. I used procreate to create this artwork, and really enjoyed dipping my toes in a little animation as it is something I have never done before. I also really enjoyed using the official colors of the the Psyche Project as it challenged me to think creatively and use a color palette that I wouldn't normally have chosen.







Knowledge

Maxine Stoenescu Acrylic Paint

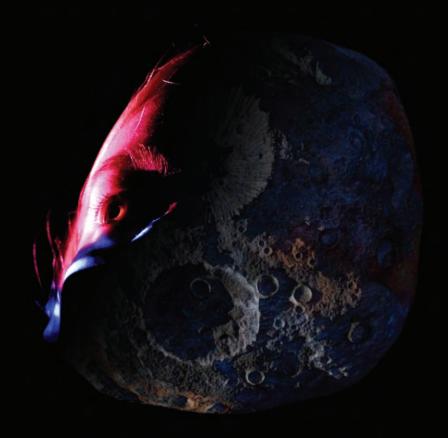
This piece is meant to represent the knowledge that Psyche possesses. The tubes coming out of Psyche and entering the human figure illustrate humanity acquiring the secrets of Psyche from the mission. Some tubes are left disconnected to further demonstrate how some secrets might linger, even after the mission's completion. Cool colors were used to emphasize ominous and mysterious themes that coincide with space itself. The biomechanical nature of the human figure was inspired by the works of H.R. Giger, and is meant to further solidify the relationship between humanity and space.

A Matinee on Main (Asteroid Belt)

Cristian Ponce
Photography / Graphic Design

My first piece for Psyche Inspired attempted to explore Psyche imagined as a pulp-fiction thriller. For Matinee on Main, I wanted to capture the same sense of childhood-wonder that surrounds the idea of the mission and travel deep into the solar system to explore an ancient world. I was inspired by the movie posters of the 80s to create this piece, namely Jurassic Park's poster. I came across the main shot of the piece by chance, while experimenting with volumetric lighting and using patterns on my projector to illuminate the face of a friend. Her face represents Psyche's, which is blended into the asteroid, showing Psyche looking out from the asteroid.

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, IN PARTNERSHIP WITH ARIZONA STATE UNIVERSITY AND JPL-CALTECH PRESENTS:



7 S Y C H E

THE JOURNEY TO GODDESS OF THE SOUL'S ANCIENT METAL WORLD

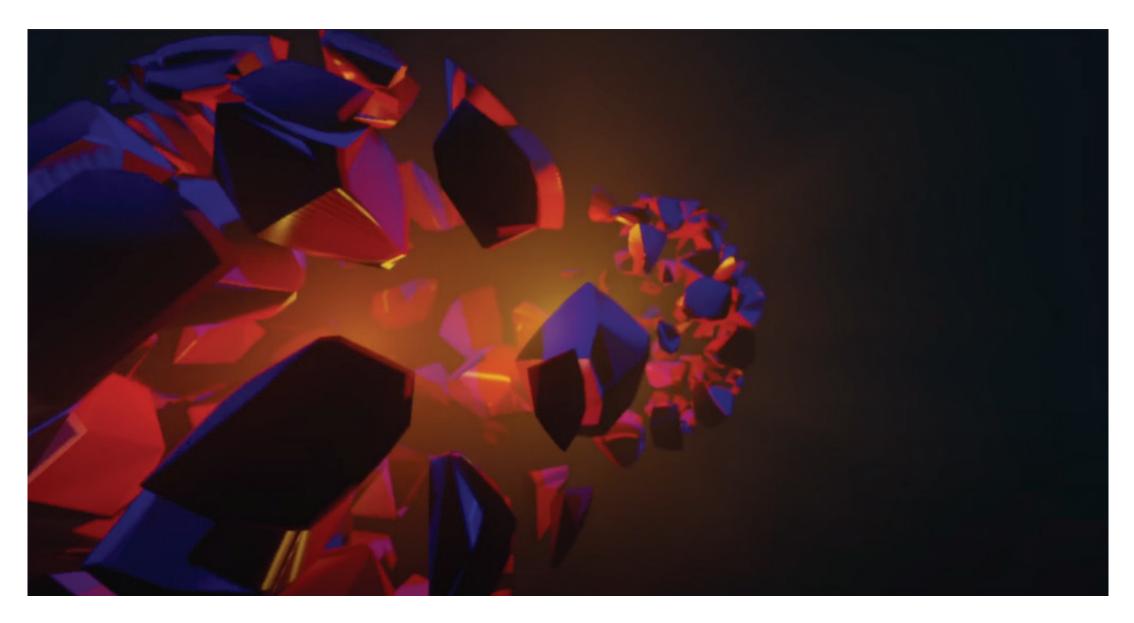
LAUNCHING FALL 2023

DIRECTED BY DR. LINDY ELKINS-TANTON OF ARIZONA STATE UNIVERSITY

MISSION MANAGED AT JET PROPULSION LABORATORY AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY

PSYCHE INSPIRED PROGRAM LED BY PSYCHE STUDENTS

ART PRODUCED BY CRISTIAN PONCE, PSYCHE INSPIRED SILVER CLASS





Collisions

Danitza Govea 3D Animation, Blender

Learning about the possibility of other Psyche creation stories, led me to create a 3D animation to explore the protoplanet collision scenario.

The composition features two protoplanets crashing as they burst into light in the colors of Psyche. Being inspired by product advertisements, I made the camera move through the scene to invite the viewers into the experience. To immerse further, I added an explosion sound and background noise to make everything feel cohesive.

The animation was created in Blender by taking two spheres and adding textures to them. Then, I animated a fracture sequence around the planet's core lighting. Lastly, the render was taken to Premiere Pro to fix dimensions and attach audio to the sequence.

Lumps of the Asteroid Belt

Kemari Tinsley-Smith Vectors and 3D Assets

"Lumps of the Asteroid Belt" is a poster that highlights the asteroids within the asteroid belt. However, the main star of the poster is of course Psyche -16. This poster was mainly inspired by topographic maps that are often used in geography. For the piece, the used Adobe Illustrator for all of the vectors and 3D components.





Psyche Elements

Maxine Stoenescu

Acrylic Paints & Glue-Water Mix

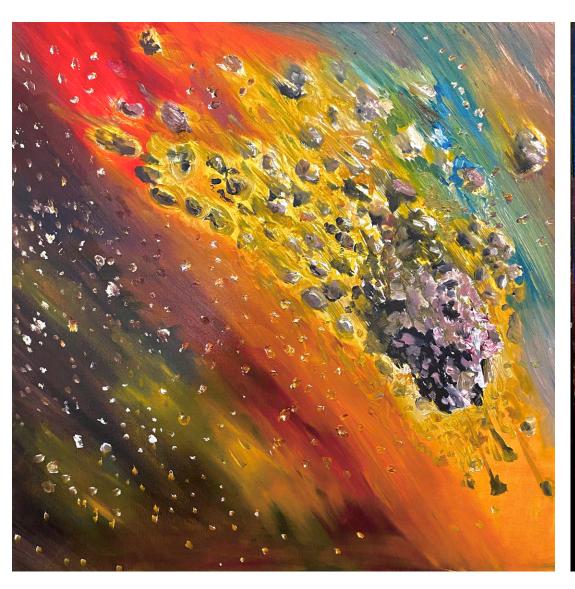
"Psyche Elements" is my introspective take on the composition of Psyche. This piece was greatly inspired by the multi-spectral imaging that will come from the Psyche mission, and I wanted to incorporate some abstract themes behind the science. This project was a wonderful excuse for me to get messy and play with a giant puddle of paint and try to make it look asteroid-like. I tried to maintain a brown base for each canvas as a reference to the asteroid, but I also wanted to incorporate as many colors as I could to illustrate Psyche's intricacies.

Impact & Re-Accretion

Dante Raso

Oil Paint on Canvas

These two paintings are an abstracted interpretation of two leading theories for the formation of the Psyche asteroid. The first painting depicts the high-speed, energetic collision between the differentiated planetesimal and another body, exposing the metallic core that would become the asteroid we know today. The second painting depicts another theory for the formation of Psyche: the re-accretion of mantle and crust layers onto a metallic core after a collision.









Lazy Psyche

Hope Elliott

Woodworking and Acrylic Paints

For Lazy Psyche, I constructed a wooden table, modified and painted a tabletop, and installed it using a Lazy Susan. When creating this piece, I wanted to make exploring 16 Psyche feel accessible and right at your fingertips. As the tabletop spins, new angles and perspectives of Psyche are brought to life and the imagination is left to run wild. I truly love this piece, because it continues to incorporate the Psyche mission into everyday life. You could have a meal, cup of coffee, draw a picture, catch up with friends, all done on Psyche. We are far from actually doing these things, but the Lazy Psyche makes it feel close.

The tabletop was sanded down around the edges to transform the plain circle into an asteroidal shape. It was continued with acrylic paints to show the texture, craters, and material features; Metallic paint was included to account for the metallic properties known to Psyche. A clear coat of gloss allowed the tabletop to be fully protected and ready for use.

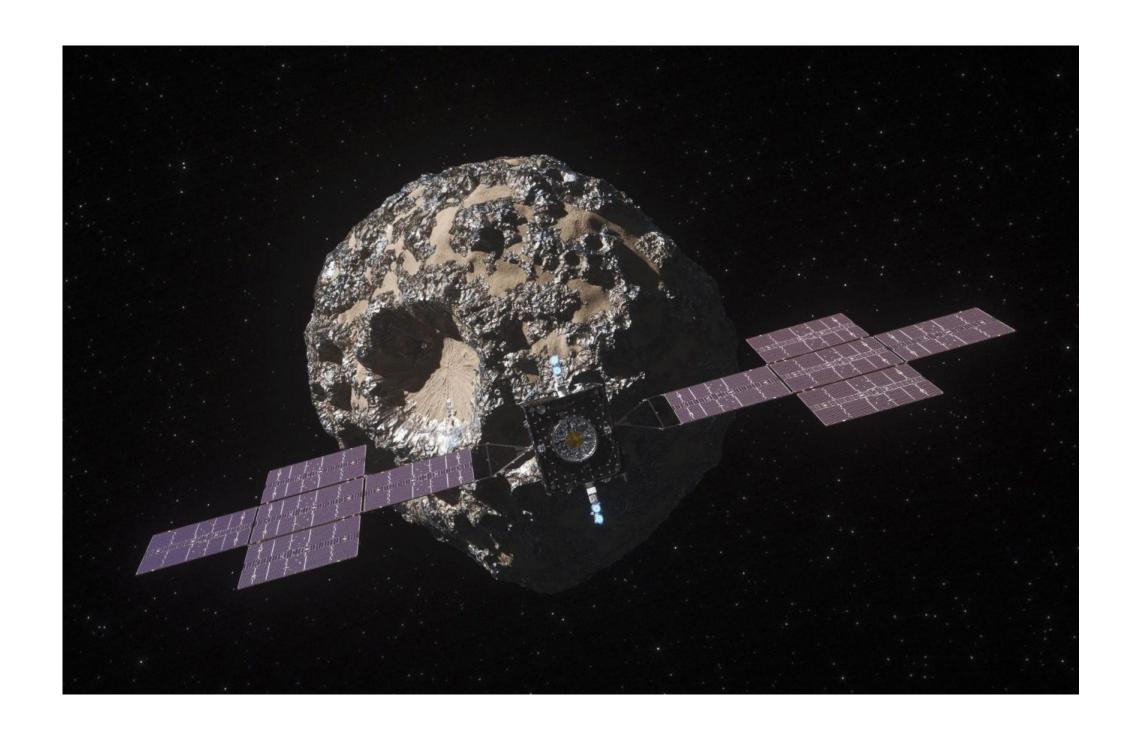
The table base was also built and finished by hand with a dark wood stain to compliment the gray of the asteroid.

In Our Sights

Dante Raso
Surreal / Oil on Canvas / Paintbrushes

"In Our Sights" is a surreal oil painting that conveys the human connection to the cosmos, our innate curiosity about it and our own origins, and now, thanks to the Psyche mission, our ability to feed some of that curiosity. This piece is a juxtaposition of the micro (the human iris with its intricate structure) against the macro, (the image of Psyche against the background of the cosmos) as well as a comparison between the beauty that is found both in human biology and outer space. The original concept was much more complex, involving a depiction of the data visualization that would be constructed after the craft completed its orbits and surveys, and more surreal elements involving craft machinery / instrumentation and equations relating to the mission. I opted for something more simple and striking after doing a few sketches.





The Mission

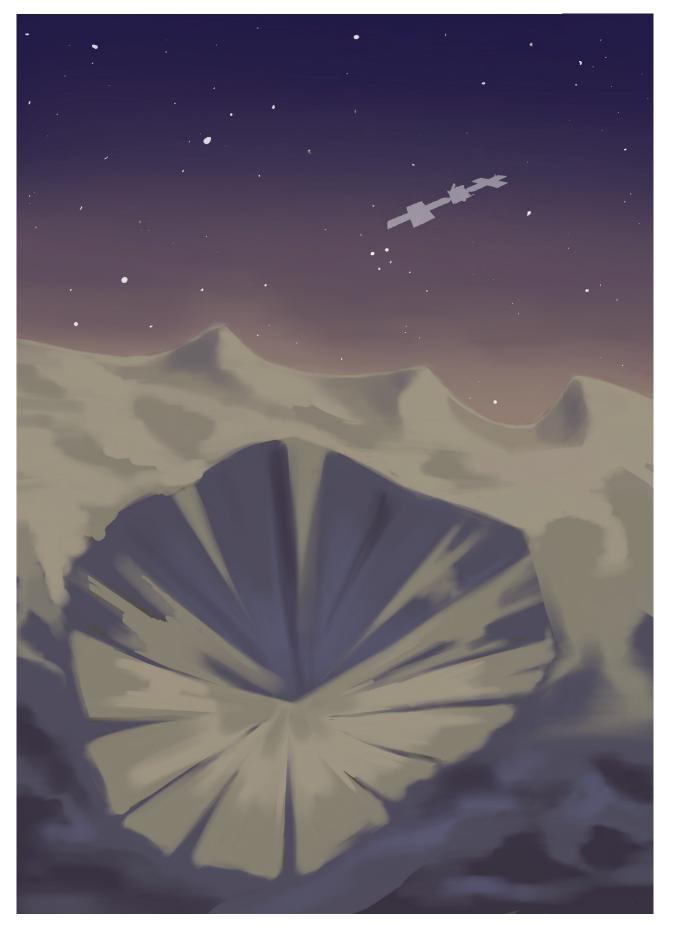
The Psyche mission was chosen by NASA on January 4, 2017 as one of two missions for the agency's Discovery Program, a series of relatively low-cost missions to solar system targets. The Psyche spacecraft will be used to study the Psyche asteroid after a period of cruising through the solar system using solar-electric (low thrust) propulsion.

A Glimpse of the Metal World

Joshua Meyer

Digital Painting (Program: Procreate)

This piece showcases the initial excitement and inspiration that I felt when first learning about the Psyche mission, and the imagination that sparked because of it. I wanted to create an illustration of how Psyche might appear and showcase the asteroid's cratered surface through the digital painting medium. I created this piece digitally using the program called Procreate. The process of creating it involved constructing several iterations of an initial sketch, then blocking in the shapes of the light and shadows, adding the color element to it, and finally further rendering anywhere that needed refining.



OCT. 2023 PRINT

JPL-ASU / CMP02 / 50¢



"Precious metals! The goddess of the soul! An ancient protoplanet! One of Discovery's best." THE KUIPER TIMES

AN ELKINS-TANTON SCI-FI THRILLER



Pulp Psyche

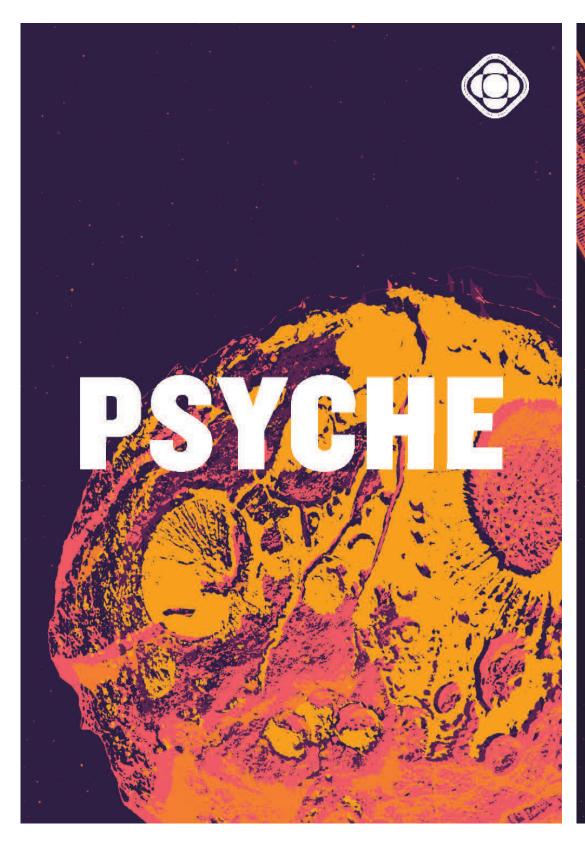
Cristian Ponce Graphic Design, Digital Art

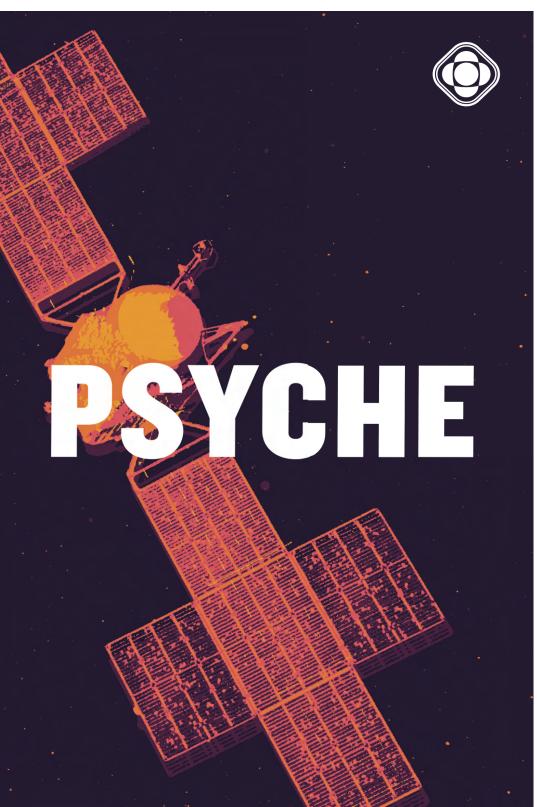
This piece was designed with the intent to inspire viewers with a sense of adventure and thrill that they may get from seeing the cover of an old pulp fiction book. The sense of awe that we get from working on scientific projects is not always easily communicable to people without the same background or interests, but there are many aspects of popular culture that connect us. By utilizing a retro sci-fi, adventurous style, "Pulp Psyche" seeks to inspire people to learn more about the 16-Psyche and the Psyche mission. Adding to the sci-fi theme, the two sketches in the piece (asteroids and astronaut) were generated by an Al model, DALLE2. The use of Al to generate parts of the art connect the imagination of science fiction to the reality of rapid developments in computing and science.

Multifaceted

Sloane Salitore Adobe Illustrator, Adobe Photoshop, Transparent Film

For this piece I used Adobe Illustrator and Photoshop to create colorful depictions of the Psyche asteroid and spacecraft based off renderings done by Peter Rubin. The poster designs are stacked layers of single-color line art. I highlighted the Psyche name and logo in the negative space, as they are the only places on the poster not completely colored. Inspired by early 1900s offset lithography works, I then printed each color layer one by one on transparent film and stacked all 10 pages on top of eachother. The translucency allows for every layer to be seen and culminate to a final image. The layers also give the impression that the spacecraft in the foreground is traveling towards the asteroid on the horizon. Practically, with this piece I wanted to experiment with my transparent film and a new design style. Allegorically, I wanted to represent the many, many people behind this mission and how all of their work has to come together to achieve success. Any layer seen by itself does not make sense, only when viewed all together does the final image reveal.







Launch on the Runway: A Psyche Fashion Line

Alyssa Armstrong & Hope Elliott Crochet and Digital Painting

"This collection was inspired by the mission to 16 Psyche and the future of space exploration.

Hope created 3 pieces for the collection: a shirt, ski mask, and bag. All of these pieces were made in the shape of Psyche and are meant to be reflective of it. Psyche 16 is the center of the mission, and she wanted it to also be the center for this project.

Alyssa focused on the spacecraft and space exploration. She crocheted a tank top with matching arm bands and a Psyche doll. She also digitally painted ""Inspire the Next Generation"" to represent the space explorers of the future."

Sippin' on Psyche

Emily Stabilito

Acrylic Paint on Ceramic Mug

Ceramic mug depicting Psyche asteroid and orbiter in space. Subtle stars represent imagination while two firey columns depict the thrill and nature of discovery. There is an illuminating quality to the world of science and exploration. Against a dark, unknown backdrop, the bright yellow, pink, and orange (Psyche logo) colored columns channel this energy of discovery and illuminate both the asteroid and orbiter in their wake; one product of human innovation, the other of the universe itself.







Psyche Now Open!

Kemari Tinsley-Smith *Vectors*

Psyche Now Open- This piece is inspired by the neon signs that I have passed by in my hometown Houston, TX. I really loved how vibrant and inviting they are to people passing by. "Psyche Now Open" means that learning about the asteroid is available for anyone to learn more about and expand their knowledge on Earth/space sciences!

Psyche Orrery

Alexa Hugenberg

3D Printing/Fabrication

Made entirely of 3D printed material, this model of the solar system, or orrery, showcases Psyche's general position relative to all other planets in our solar system. As demonstrated by this model, the Psyche asteroid orbits the Sun between Mars and Jupiter within the asteroid belt. Also included is a model of the Psyche space craft and its solar panels. The Psyche logo, asteroid and space craft were all painted with acrylic paint after being 3D printed.





PsycheBot

Maxine Stoenescu
Fine-Tip Marker and Gouache Paints

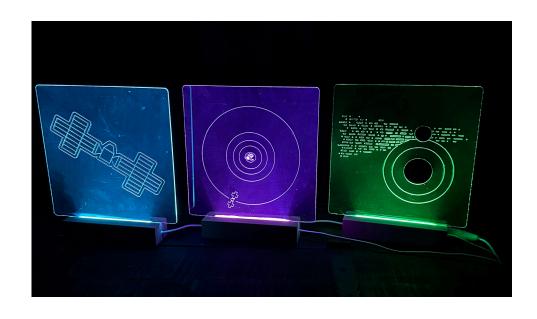
This piece's intent is to personify the Psyche spacecraft as a cute, palpable robot. The robot is made up of multiple components from the spacecraft, with the head replicating its overall shape. The various colors used to make up the robot signify the various materials of Psyche, and the robot is holding samples of Psyche in each hand as a means of studying it. This piece was also motivated by a biomechanical theme, and is meant to connect man, machine, and space.

Psyche Illuminated

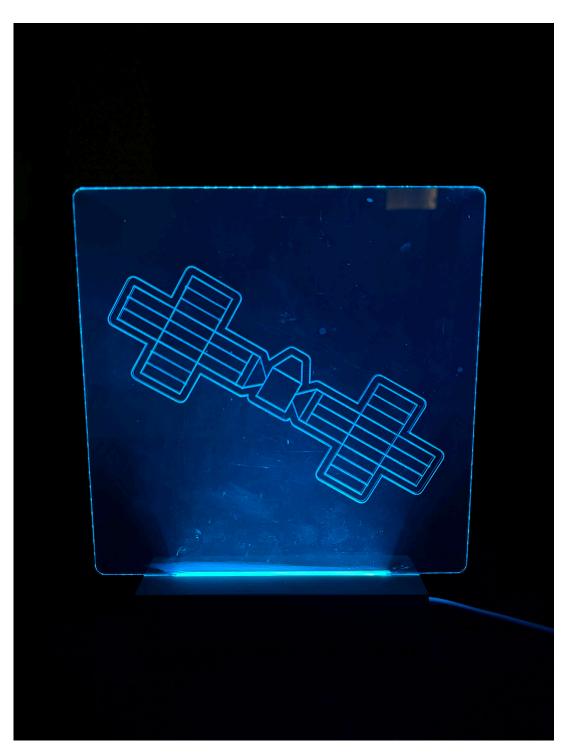
Abigail Miller

Laser Cut Acrylic, LEDs, Wood

Psyche Illuminated is a culmination of three LED displays (from left to right); 'Vessel', 'Trajectory' and 'Collision'. Together these showcase three components of the Psyche mission; the spacecraft, its four orbits, and the formation of the Psyche asteroid. Each component is laser cut or etched onto an 8x8 sheet of clear acrylic and set into a wooden block containing an LED strip. Each of these LED lamps allow for light to diffuse through the acrylic, illuminating its design. The inspiration behind the design is trying to find new ways to "shed light" on the Psyche mission and the fascination behind the journey to a metal world.









The Psyche Jazz Project

Kemari Tinsley-Smith *Digital Art*

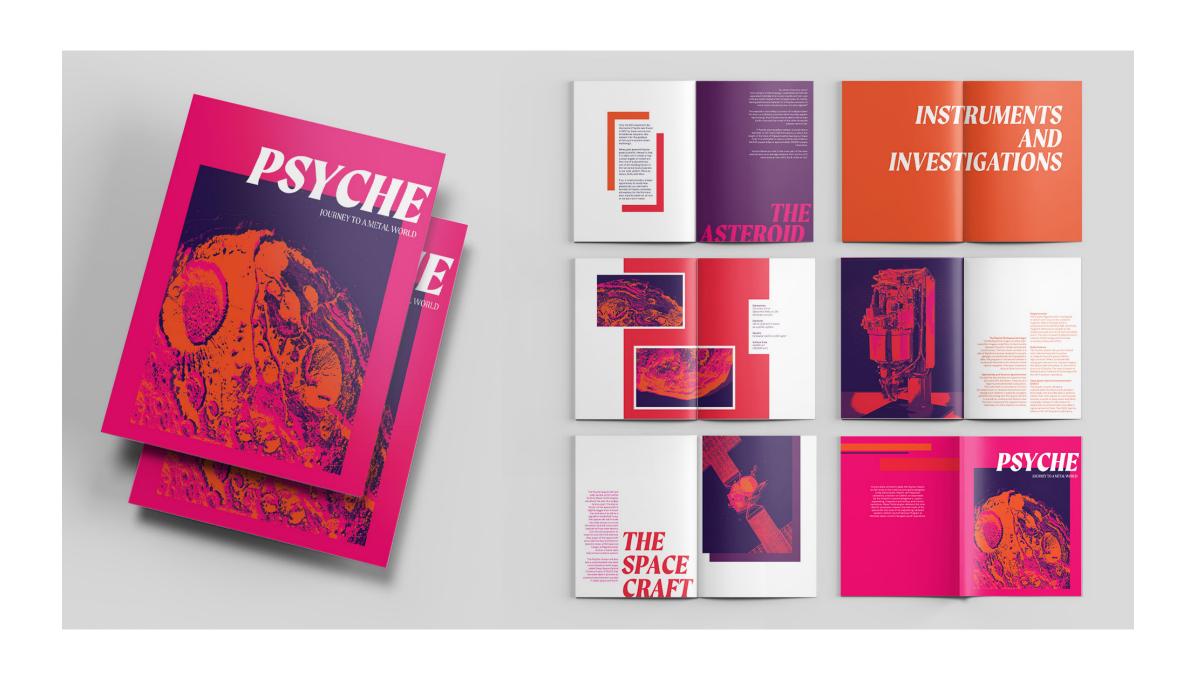
This piece is inspired by jazz club posters that were often seen in the '60s. I was inspired by 60's jazz posters due to the fact that they are very abstract and shapes being imperfect is what makes those pieces unique, just like listening to jazz improv performances imperfect notes and tones is what makes listening to jazz unique! For this piece, I decided to use the digital software, Procreate.

Psyche Digital Magazine

Sloane Salitore

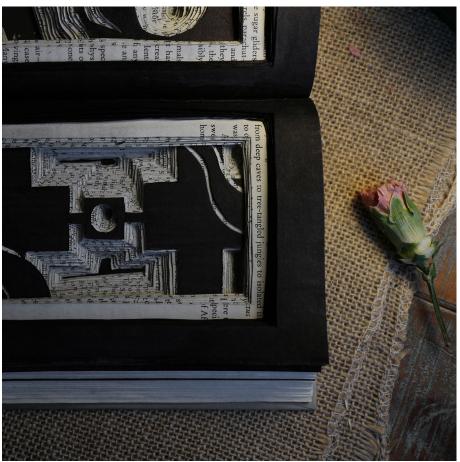
Adobe Photoshop, Illustrator,
and InDesign

This piece is a short, digital magazine meant to share all about the Psyche mission and its components. An experimental editorial layout hopes to inspire creativity and reflect the adventurous and lively spirit of the team. Images and copy from the Psyche website were manipulated using Adobe Photoshop, Illustrator, and InDesign.











The Mission

The Pages of Psyche

Sunny Collins

Book Art, Book, Glue, Exacto Knife, Marker

Within the pages of books, we discover more of the world, and therefore, ourselves. We imagine amazing environments, characters, and stories in fiction and recall history and iconic figures in non-fiction. Our hopes, dreams, and potential are within the pages of books, and so I wanted to honor Psyche by putting it in one. The book I chose is called "The (Very) Short History of Life on Earth" by Henry Gee. This is the book I decided on because, with the information gathered from Psyche, it will fill in gaps in the history of Earth.

On the left side, Psyche is represented by it's two main craters carved within the layered pages. On the right side, the satellite is represented and outlined with cascading pages to the back of the book.

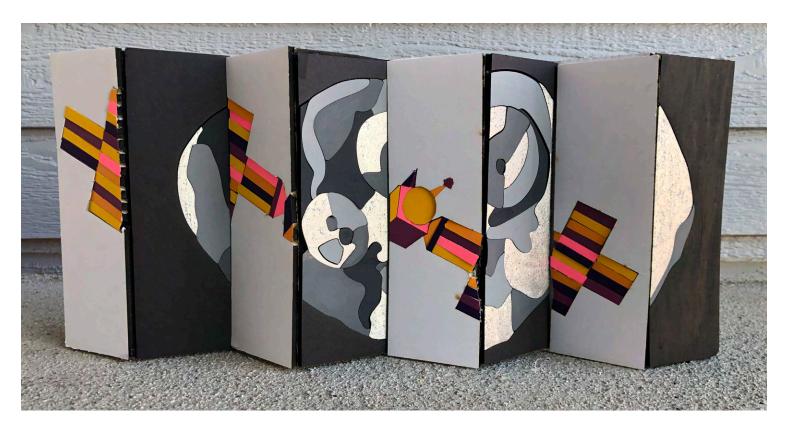
As for creating this piece, I used the book, watered-down Elmer's glue, a paintbrush, an old credit card, an exact-o knife, a pencil, and a black marker. Starting at the back of the book I would pour glue onto a paper plate, dip my paintbrush in a cup of water and mix it. Once the consistency was like yogurt, I would brush it onto a page, turn the next page over, smooth it out with the old credit card, then glue the next page. Once all pages had dried, I split the pages in half and put a heavy weight on them so they would lay flat when fully opened. From there I would lightly sketch with a pencil on the pages and then cut. Once cut, I could draw within the confines of the cut pages and create dimension. For the craters, I would draw a circle, cut, trace the circle I had just cut on the page underneath, cut, and continue until they got smaller and smaller.

Psyche Agamograph

Alexa Hugenberg

Laser Cut Agamograph

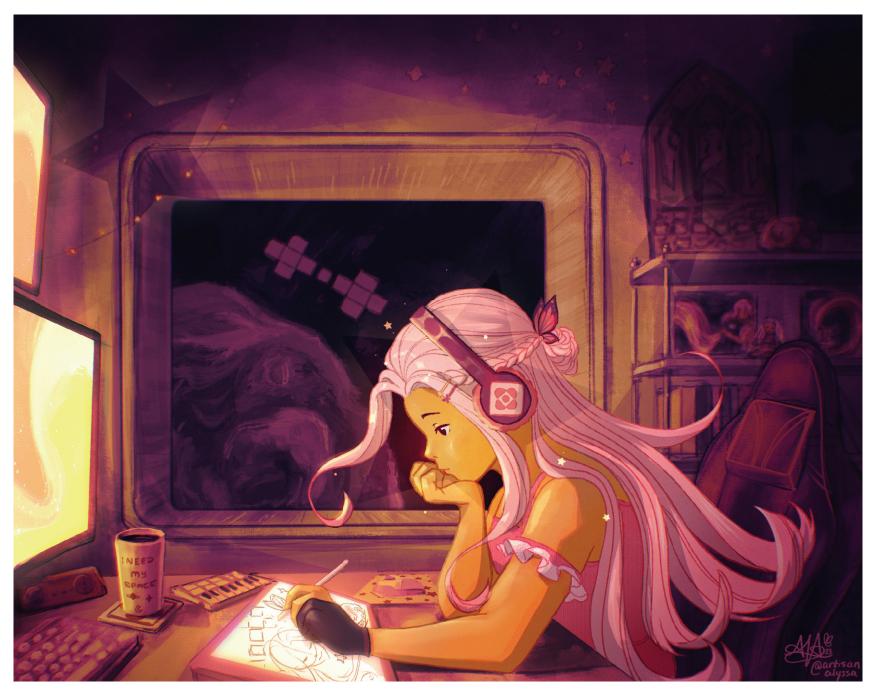
Inspired by the concept of looking at every opportunity or challenge from different perspectives for better understanding and discovery, this agamograph uses optical illusion to change the image seen by the viewer in the artwork depending on their angle. From one angle, the viewer can see an image of the Psyche asteroid and from another the viewer can see an image of the Psyche spacecraft. Both images were made by laser cutting poster board. Each individual piece was then painted with acrylic paint and glued onto a zigzagged piece of cardboard.







The Mission





PSY-FI: Beats to Relax/ Study/Explore Space to

Alyssa Armstrong *Music and Digital Art*

PSY-FI depicts Psyche as the "Lofi Girl" drawing ideas for Psyche Inspired. This piece symbolizes the potential of ideation and sketching. She is listening to the song "PSY-FI", a lofi song I composed to represent excitement of past and present eras of space exploration.

Trans World Airlines 2023

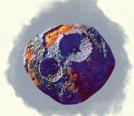
Cristian Ponce *InDesign, Procreate, Fliphtml5*

In a search for inspiration, I ended up at Surplus Sid's Military Surplus Shack in Carrboro, NC. Initially reluctant to join me, my friends were worried about the characters that would populate a run-down military surplus store in the South. We ended up being the only people in the store, other than Surplus Sid. He was a kind, tall man with a long, white beard who followed me around to explain items around the shop. Out of the corner of my eye, I saw schematics for the SR-71 on his wall. I asked if he was a fan of aerospace engineering, and he replied yes. He explained to me that when he was my age, he made a list of 108 things that he wanted to do before he died. The 108th thing was walking on the hills of the Moon. He never got to do that, but he explained he was able to come close, seeing the glow of our atmosphere from the edge of space. Above the documents, there was a picture of a much younger man in what looked like a space suit. Sid explained that he worked in military intelligence, and was friends with a pilot of one of only a few SR-71 planes with a co-pilot seat. We continued to talk and I explained my interest and space and work with Psyche Inspired, asking if there were any old magazines he had. He found some LIFE magazines published as far back as the 40s. I rushed home to read the magazines, finding a TWA ad that I immediately was inspired by. I decided to recreate the ad with my friend, Tanner, before realizing it would be great for the Psyche Inspired program.

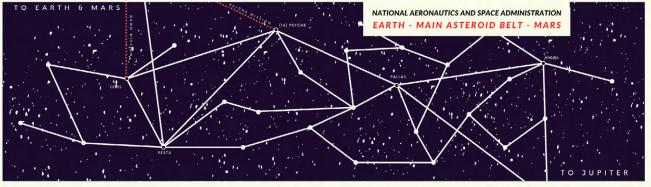


shoot for the stars... and fly NASA

Today's ambitious scientist has discovered that getting along with NASA's Discovery Program is really getting along. The Discovery Program gives scientists a ticket to travel across the solar system, in pursuit of answers to important scientific questions. Founded in 1990, Discovery missions have flown across the system, to the Moon, Mars, and comets. Within the next decade, Psyche & Lucy will reach asteroids in the Main Asteroid Belt and beyond.



(16) Psyche, the destination of Discovery's Psyche Mission
Where in the solar system would you want to go? For
information on Psyche, visit https://psyche.asu.edu/





Psyche Vinyl Record Album

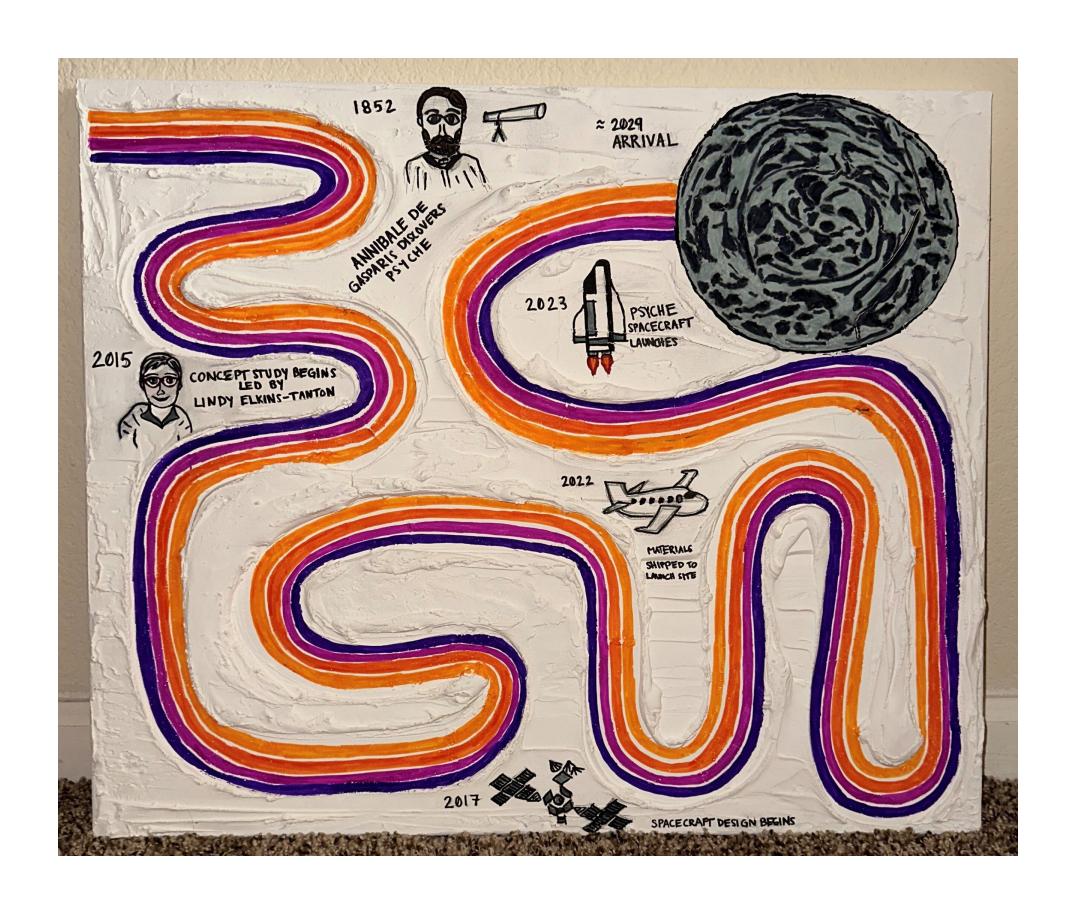
Sloane Salitore *Adobe Illustrator and Photoshop*

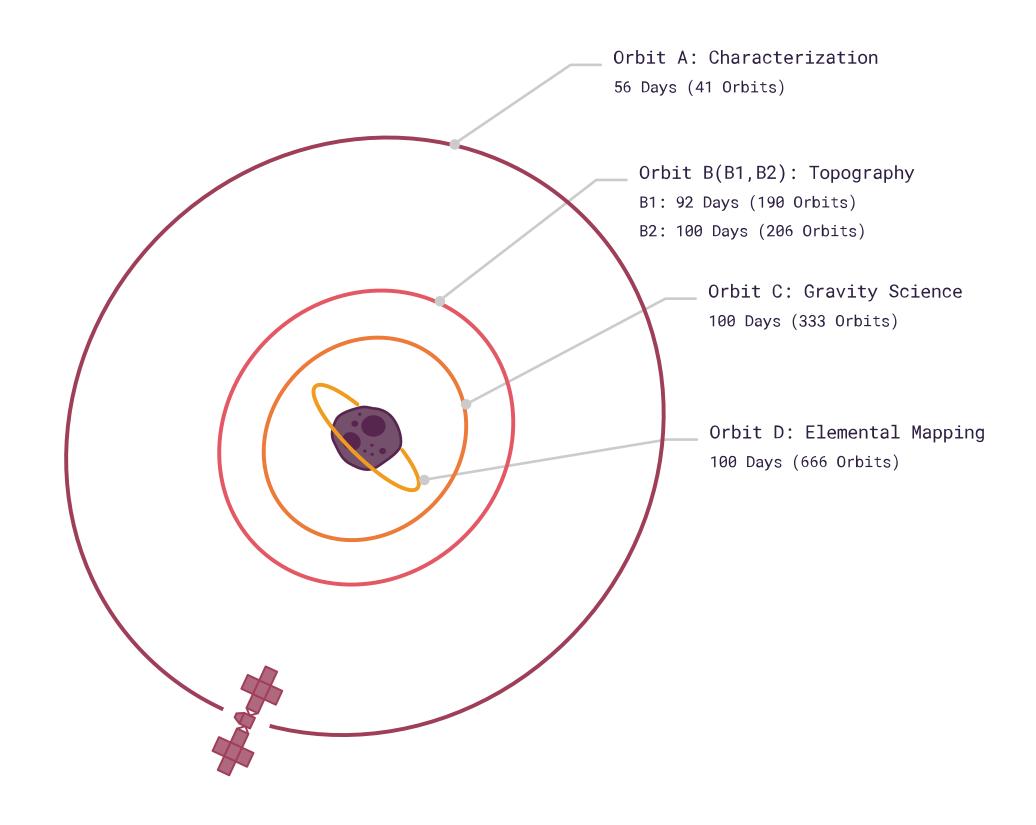
This album cover was inspired by the topographical maps often made of asteroids and planets, but the swirling lines are ambiguous, because we aren't quite sure what Psyche-16 actually looks like yet. The ombre colored lines are also reminiscent of the sound waves that would be released by this vinyl record.

Psyche Across Time

Abigail Miller Canvas, Plaster, Water-Based Brush Pens

Psyche Across Time is a 3D artwork achieved through the process of applying plaster directly to canvas. The use of different spackling tools is utilized to create surfaces both smooth and textured. The inspiration behind this project was a desire to showcase the hard work that has gone into the Psyche mission throughout the years. Beginning with the discovery of (16) Psyche in 1852 and ending with the possible arrival of the spacecraft in 2029, the piece takes you through the course of Psyche's history. To emphasize the journey, a path has been hollowed out through the canvas and lined with Psyche's colors to represent the long and winding path towards launch. Along this curved path, a series of important events are showcased; the discovery of Psyche, the mission proposal, preliminary design, the arrival of the spacecraft in Florida, launch of the spacecraft, and arrival at (16) Psyche. Each event has a corresponding drawing and year it took place that have been inked with water-based pens.





Arrival

In August 2029, after a six-year journey of about 2.2 billion miles (3.6 billion kilometers), the spacecraft will start orbiting the asteroid for at least 26 months.

Through a series of circular orbits that go lower and then higher in altitude around Psyche the spacecraft will map the asteroid and gather science data. The orbits are named alphabetically by highest (A) to lowest (D), but they don't proceed in alphabetical order. Rather, they proceed based on the changing amount of sunlight illuminating the asteroid's surface during observation and the kind of science that can be done.

A Familiar Sight

Danitza Govea

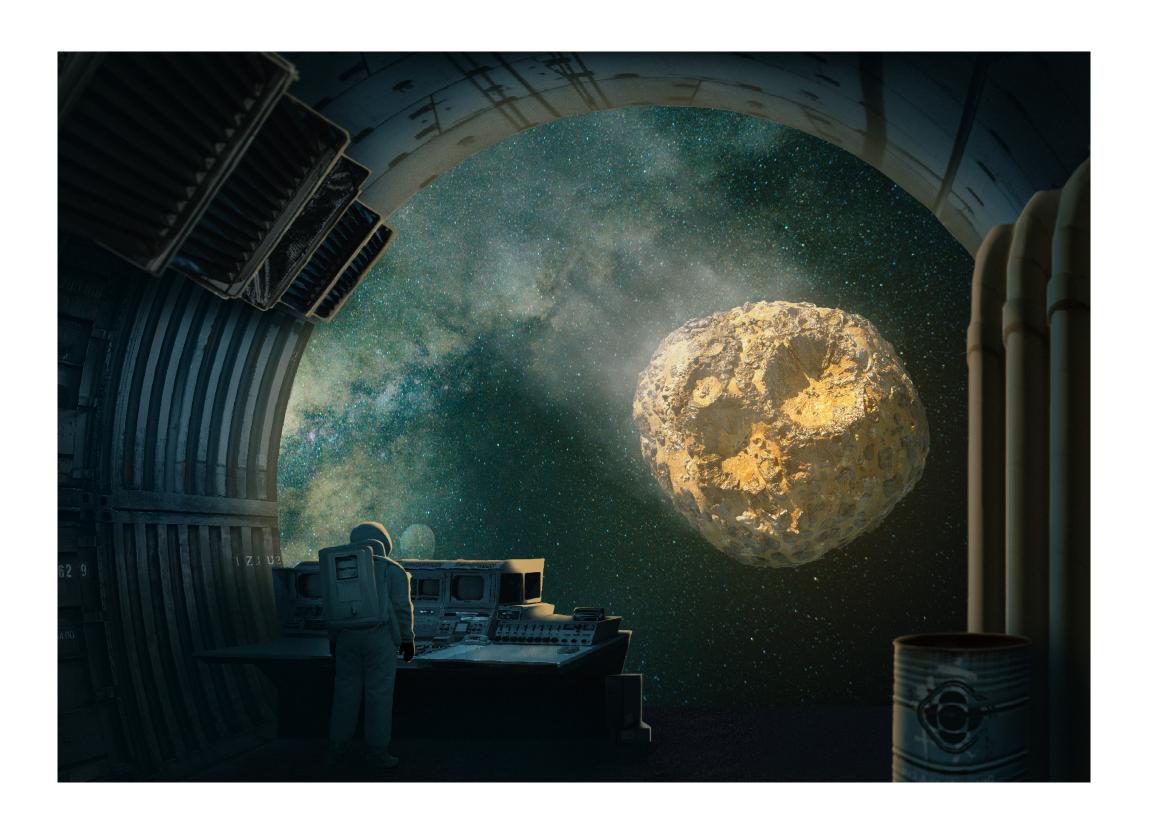
Digital Art, Photobashing

made in Photoshop

A Familiar Sight is a representation of humanity's dedication to the Psyche mission. It shows that through years of hard work, humanity will finally have that leap forward and be able to record data once the Psyche spacecraft reaches the asteroid.

This digital piece was inspired by concept art created by collecting photographs, then cutting and merging them into a composition with a technique called photobashing. Once this step was completed, I edited the colors of the objects and subject, then edited the exposure to match the background. Next, I drew on some of the images to create texture, shadows and highlights to blend into the environment.

By using the asteroid as a source to emit light onto the astronaut and environment, it invites you to explore the surroundings from background to foreground. To conclude the photobashing piece, I added the two black stripes that concept artists often use to showcase their work.







The Magician and The World

Mary Helen Lewis *Digital Art*

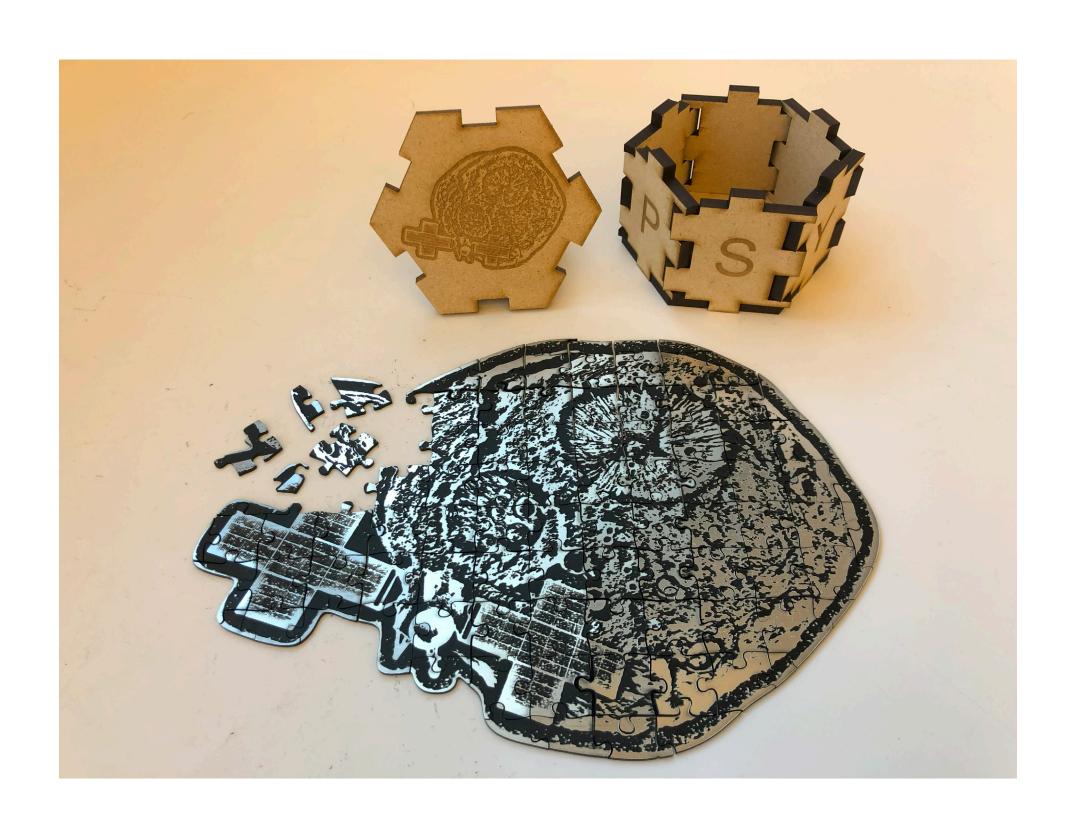
For my first project I wanted to make a Tarot Card inspired piece to represent the Psyche Mission. I have always loved the style and meaning being tarot cards and wanted to explore that style of artwork. I made two digital pieces, each representing specific cards. The first card that I chose was The Magician. I thought that this card was very fitting, as it represents that you have all of the skills and talent needed to succeed, as well as a connection between the earth and the universe. I decided to include an astronaut in this artwork, despite the fact that we are not sending people to the Psyche asteroid. The astronaut was added to represent the talented people that are working incredibly hard to make this mission happen and connecting us on Earth to the asteroid. The second card that I chose was The World. I strayed from the original design of the Tarot card and decided to represent Psyche 16 as the world. In a way this card represents new opportunities and worlds opening up to you such as the metal world that we will soon sending our orbiter to.

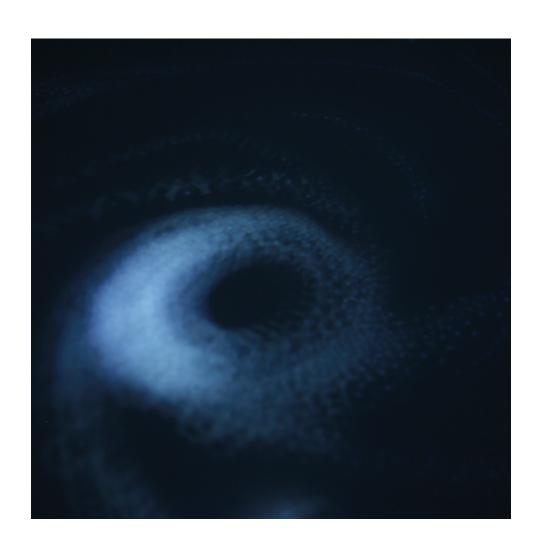
Psyche Puzzle

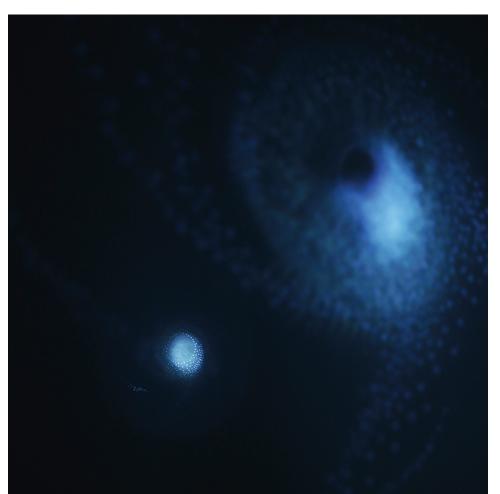
Alexa Hugenberg

Laser Cut Fabrication

This Psyche puzzle was inspired by the sense of curiosity and the feeling of the unknown. Two-ply acrylic was used to highlight the assumption that the Psyche asteroid is likely rich in metal. Both the puzzle and the box were made by laser cut manufacturing. Each side box panel has an engraved letter which spell out the word Psyche. The top panel features an engraved depiction of the completed puzzle design.









Impact of Psyche in Light

Sunny Collins

Paper, Needle, and Light

Captured with Photography

"I was inspired by the giant impact and following hit-and-run impacts that made Psyche what it is today. The destruction was just the beginning and resembles a galaxy as the mantle is sprayed across space. Light felt like a perfect medium to use since it is how we see space. Additionally, using light heightened the resemblance to a galaxy even more so.

The photos and video were created by taking a 9in x 12in piece of Bristol paper and lightly sketching a circle for Psyche and lines for the remnants coming off of it after impact. Once the sketch was done, I took a needle and poked holes along the lines. The variation in the proximity of the holes represents both the distance and density. Then in a dark room with a strong flashlight I held the piece of paper above a glossy white counter and shined the light through so the dots would show through on the counter below.

Two of the photos show the image of the impact of Psyche in exactly the way I described my process, while the other two show insight into the process. In one photo, you can see the paper with the light coming through, as well as the light being shown through to the counter, the other photo shows the light along with the reflection of the paper.

The video is meant to give more energy and movement to the concept with light running along the spiral. The dots merging and flowing together as the light runs along the poked dots of the paper. I thought this would be a nice way to illustrate the transfer and creation of energy through the impact of Psyche."





Abigail Miller
Texas Tech University
Architecture



Alana Negrón Díaz
University of Puerto Rico
Civil Engineering







Alexa Hugenberg
University of Colorado, Boulder
Creative Technology & Design



Alyssa Armstrong
Arizona State University
Mechanical Engineering



View all the interns' pages: https://psyche.asu.edu/get-involved/psyche-inspired-silver-class/





Cristian Ponce
California Institute of Technology
Biological Engineering



Danitza GoveaArizona State University

Graphic Design







Dante Raso
Pennsylvania State University
Astronomy & Astrophysics;
Painting & Drawing



Emily Stabilito

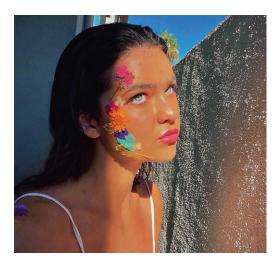
Arizona State University

Business (Sustainability)

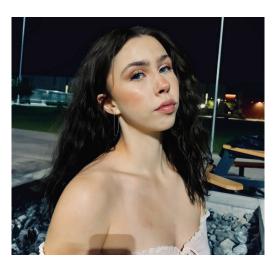


View all the interns' pages: https://psyche.asu.edu/get-involved/psyche-inspired-silver-class/





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Index

Abigail Miller

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Alexa Hugenberg

Alyssa Armstrong

Cristian Ponce

Danitza Govea

Dante Raso

Emily Stabilito

26, 74, 112, 128

30, 32, 60, 72

46, 108, 120, 136

12, 18, 102, 122

62, 80, 98, 124

28, 56, 82, 132

52, 88, 92

16, 50, 104

Index

Gwenan Walker

Hope Elliott

Joshua Meyer

Kemari Tinsley-Smith

Mary Helen Lewis

Maxine Stoenescu

Sloane Salitore

Sunny Collins

14, 20, 34, 36

40, 64, 90, 102

22, 42, 66, 96

58, 84, 106, 114

76, 134

24, 78, 86, 110

44, 100, 116, 126

48, 70, 118, 138