

# The Air Art Institute—Executive Summary

May 10, 2022

## Mission

The Air Art Institute will be dedicated to teaching the *Art of Flight*. There is an inherent beauty and grace to things that fly. While visiting the Air Art Institute, people will learn firsthand about the subtle mysteries of flight. Hands-on opportunities to discover the principles of lift, drag, balance, control and propulsion will be available for visitors to experience. Learning will occur at a natural pace, and visitors will come to understand flight by playing on *Test Flight Hill*. Age and developmentally specific hands-on aeronautical educational programs and workshops are at the core of our educational mission.

Our targeted audience will be parents and their children from all backgrounds with diverse skills and interests as well as aviation buffs. Our goal is to instill a pleasure in the magic of flight and to encourage young boys and girls to dream of becoming pilots, designers, artists or aeronautical engineers.

In addition to teaching aerodynamic fundamentals in a fun and stimulating way, the Institute will invite artists from around the world to create new works of flying art. The most exciting or inventive of these will be reproduced and available for sale at the Institute's Gallery. Flying toys, aero-science kits and larger installed sculptures will be available online for individuals, schools, private collectors and municipalities.

## Philosophy

As we celebrate the centennial of the Wright brothers' first flight, aviation is commonplace, but the general public seldom understands the basics of aerodynamics. The Air Art Institute will provide the building blocks: moving air and strong, lightweight shapes. Visitors will discover for themselves how these wild forces can be tamed. In doing so, they'll gain a fundamental understanding of aerodynamics that can never be taught by a book.

## Five-Year Plan

Phase I: "Traveling Trailer" The Air Art Institute will first come into existence as a traveling trailer non-profit enterprise in Salt Lake City, Utah. A two-person staff would offer lessons in two modes: (a) visits to schools and (b) programs at community parks. All our core educational programs will tie directly into and fulfill the Utah Education Standards for Art, History, Science and Technology. Salt Lake City was selected for the uphill breezes and because it has existing flying parks at *Point of the Mountain*.

Phase II: "Gallery" The success of the Traveling Trailer will help fund a storefront Gallery for the Institute. Classrooms, workshops, and a boardroom will be included with the main Gallery showroom. Works by world-class aerodynamicists and talented teenagers will be offered for sale. The Gallery will be located near Montgomery Field, to the north of the city, between the bay area and Miramar Naval Air Station.

Phase III: “Hillside” The search will then begin for a nearby large, grassy, gently sloping hillside. Once located, *Test Flight Hill* will be a place for visitors to try their own creation or to watch the designers test-fly their Air Art. The Gallery and *Test Flight Hill* will raise public awareness of the Air Art Institute while we recruit board members, volunteers and staff and search for our final location nearby to *Test Flight Hill*.

Phase IV: “Transition” Once the Board of Directors is in place, we will begin hiring of top staff. The director of development will begin fund-raising. Volunteers and resident instructors will be recruited, and they will create, develop and expand hands-on lessons, both in-house and outreach educational programming and workshops. Classes will continue in the Traveling Trailer, the Gallery, and *Test Flight Hill*.

With funding secure, the final location for the Air Art Institute will be chosen. Located at (or nearby) *Test Flight Hill*, the building will be purchased or constructed. The final location will be determined by the proximity to schools. The Gallery operations will continue, raising money and awareness. During this phase, the director of programs will develop more content and hire the first round of artists-in-residence. Wealthy aviation patrons, who in return will be given the original artwork, will fund the artists. Reproductions will be displayed and sold in the Gallery. The artists will begin working on their Air Art.

Phase V: “Opening” The building is finished, with marvelous workshops and classrooms. The Gallery closes at the storefront and re-opens, expanded, at the new hillside location. The Air Art from the resident artists, and the best of the students’ creations are all on display (and for sale). A “soft opening” for members and invited guests allows for a final round of feedback and adjustments. Soon after, the doors to the Air Art Institute open to the waiting public.

## Content

Bubbles, balloons, arrows, rockets, kites, parachutes, Frisbees, boomerangs, gliders, and toy helicopters—each one of these has a lesson. We will study the art of flying in nature, from maple leaves and dandelion seeds to the graceful beauty of a soaring bird. When the Wright brothers set out to understand the secrets of flight, they broke the problem down into three components: lift, control and propulsion.

Students will learn the *Art of Lift* by studying balloons and wings. They’ll learn the *Art of Control* by becoming skilled at stability and balance, center of gravity vs. center of pressure. To learn the *Art of Propulsion*, students will practice using propellers, jets and rockets. But most of the flying machines will be powered by gravity and designed to glide down *Test Flight Hill*.

Assembling flying contraptions occurs at the **workshop**. Under the watchful eye of trained instructors, students learn to build age-appropriate airplanes. Tools for working in wood, metal and plastic will line the walls. An electronics workbench and a wind tunnel will help artists and students practice the *Art of Flight*. A computer lab will allow simulation and prototyping.

Parked alongside the workshop is the **Traveling Trailer**. The trailer has many of the same tools and raw materials as the workshop. The trailer is used in two ways: (1) visits schools and (2) presents programs at parks. Visiting schools will allow the Air Art Institute to teach dozens, if not hundreds, of classes about early aerodynamics. On weekends, the trailer will set up at a large grassy field at one of the many public parks in the Salt Lake City area. Our lessons will teach the public while spreading awareness of the Air Art Institute. The trailer is “Phase I” of the creation process of the Air Art Institute.

Most of the courses offered by the Air Art Institute are taught in the **classrooms**. Designed as teaching labs, and equipped with state-of-the-art computers and projectors, the classrooms of the Air Art Institute will be where students learn the *Art of Flight*. Some of the lessons will be delivered using CFCD, an exciting new way to incorporate industry-sponsored incentives into education.

The best of the flying artwork from the **resident artists** will be put on display in the **Gallery**. Students will show off their finest work, and many of the items will be offered to the public for sale. An online exhibition will compliment the Gallery and allow people all over the world to appreciate and purchase the works of the Air Art Institute.

The centerpiece of the Air Art Institute is *Test Flight Hill*. Located at the top of the gently sloping hill, a large grassy field extends out and down into the oncoming wind. The wind, deflected by the hill, moves upward and provides free, quiet ridge lift. A wide selection of flying objects will be available for students and visitors. They will discover through personal experience the subtle interaction of moving air and flying surfaces. Young students will quickly see what works and what doesn't. The ridge lift will make poor-performing gliders fly great, and well-designed gliders fly indefinitely. Many gliders will be equipped with radio-controls. A wind-powered glider return system (imagine a miniature ski-lift) will return the gliders to the top of *Test Flight Hill*.

## Location

The Air Art Institute will be located in Salt Lake City. This city has a large number of visitors to the nearby hills, including the Salt Lake City *Flight Park*. They are a primary audience for the Air Art Institute. Another strong reason for locating the Air Art Institute in Salt Lake City is the availability of abundant ridge lift. Prevailing winds blow across the lake, striking the hills and turning upward. This ever present, natural, quiet source of force is a fundamental building block for the Air Art Institute. Being surrounded by upward-moving air, feeling its power, learning how to harness its potential—that is the center of the visitor experience.

## Nonprofit Status and Mission Statement

The Air Art Institute will be organized as a 501(c)(3) nonprofit corporation. The Institute's purpose is to teach the basic principles of flight, and to commission, create, collect, preserve and exhibit examples of flying art for the benefit of the public.

## Funding

The Air Art Institute will be funded by grants, donations and gifts-in-kind, and will seek funding from foundations and government endowments. The Traveling Trailer will provide fee-based lessons to schools during the week, and on the weekend present programs (funded by municipalities) at public parks. Many different classes will be taught, from one-day workshops to six-week aero-camps. Income from these classes will help fund the Air Art Institute.

Our Gallery will sell authorized reproductions, and signed original art, both from the resident artists and students. Some parts of the facility will be available for rental.

Educational content will be created and sold. Aerospace science kits will be offered to school districts around the country (perhaps around the world). Online content will be very substantive.

The Air Art Institute could also become a clearinghouse for research grants. We would seek out large endowments for the express purpose of re-distributing the monies to other organizations engaged in aeronautical research. Acting like a “think tank,” the Institute would help fund programs at schools, colleges and other research facilities.

## The Bottom Line

The Air Art Institute will provide a unique experience to its students, and be an attractive organization to donors. Income from classes and sales of licensed art will bring in revenue.

Aeronautical education will inspire and grow a new generation of aerospace workers. Future pilots, engineers, designers and artists will get their first taste of flight at the Air Art Institute. Aerospace firms, airlines and the government will be enthusiastic to fund to the operation of the Air Art Institute.

Fine works of art will be created and put on display. Reproductions will be sold, and some originals will be presented to the generous patrons who endowed the artists.

No other museum or institute is currently providing these services. At the dawn of the second century of manned powered flight, the time is right to celebrate and display the subtle, complex juxtaposition of air and art.