

FROM THE FIELD

STEAM ON TOUR

Andrew J. Brovey, Ed.D.

This story begins some 35 years ago, with a forward thinking school principal named Ronny Green. Mr. Green was an early promoter of art integration. He knew his students had little knowledge of great artists or famous works of art, and most had neither the means nor motivation to study such masterpieces. He decided if students could not go to the art, then the art would have to come to them. Mr. Green purchased prints of several great works, had them framed, and displayed these in prominent locations in the school hallways. Their curiosity aroused, teachers and students were encouraged to incorporate the art into the school curriculum, not just in art classes but in other subjects as well.

Today, Dr. Green is a Professor of Curriculum, Leadership and Technology. He's logged more than 700 visits to over 200 schools, working on school improvement and guiding the next generation of school leaders. Like many others, he noted the decline of art in the school curriculum and the growing emphasis on subject areas associated with STEM. He decided to revive and renew his original idea for art integration, and in the summer of 2016 STEAM On Tour was born. STEAM On Tour is an engaging exploration of art masterpieces that connects great art and artists to science, technology, engineering and mathematics (STEM). This art integration, known as STEAM, encourages students and teachers to connect technical and creative content.



Dr Green and his prints.

Start-Up and Philanthropy

On Tour began as a true bootstrap endeavor with Dr. Green funding project development and family members volunteering to help. He chose and researched the art pieces, carefully sorting a group of more than 50 potential prints to reach the final collection of 24. He wrote the original guidebook and called upon colleagues to review the STEM content. His wife Delores served as an editor for the first edition. His brother David agreed to build the frames, mat the prints and assemble the final framed artworks. Ronny personally delivered the initial set of prints to a local school.

Ronny has graciously donated the On Tour project to the Educational Services Consortium, a not-for-profit foundation focusing on school improvement and student success since 1973. Proceeds from sales of this project will help support educators and students served by the Educational Services Consortium.

Project Content and Purpose

On Tour employs art as a purposeful pathway to STEM topics and makes famous artwork real-world relevant for today's students. The On Tour Gallery includes 24 of the greatest works of art, reflecting significant periods and styles in the history of Western civilization. The oldest print is circa 17,000 B.C., the Lascaux Cave Painting of Animals. The most recent item in the collection is from 1981, Jammin' at the Savoy. The entire collection is now shipped directly from one of the world's largest online retailers of wall art. Each impressive print is custom-framed, high quality, and ready for display.



The 24 selected works of art.

Two copies of the On Tour guidebook accompany the collection, with two pages devoted to each work of art. The first page introduces the artwork and reveals significant events and influences in the artist's life. We see how traits such as personality, temperament and individuality shaped what we see on the canvas. STEAM questions make up the second page. These sample questions encourage interpretation, analysis and further investigation.

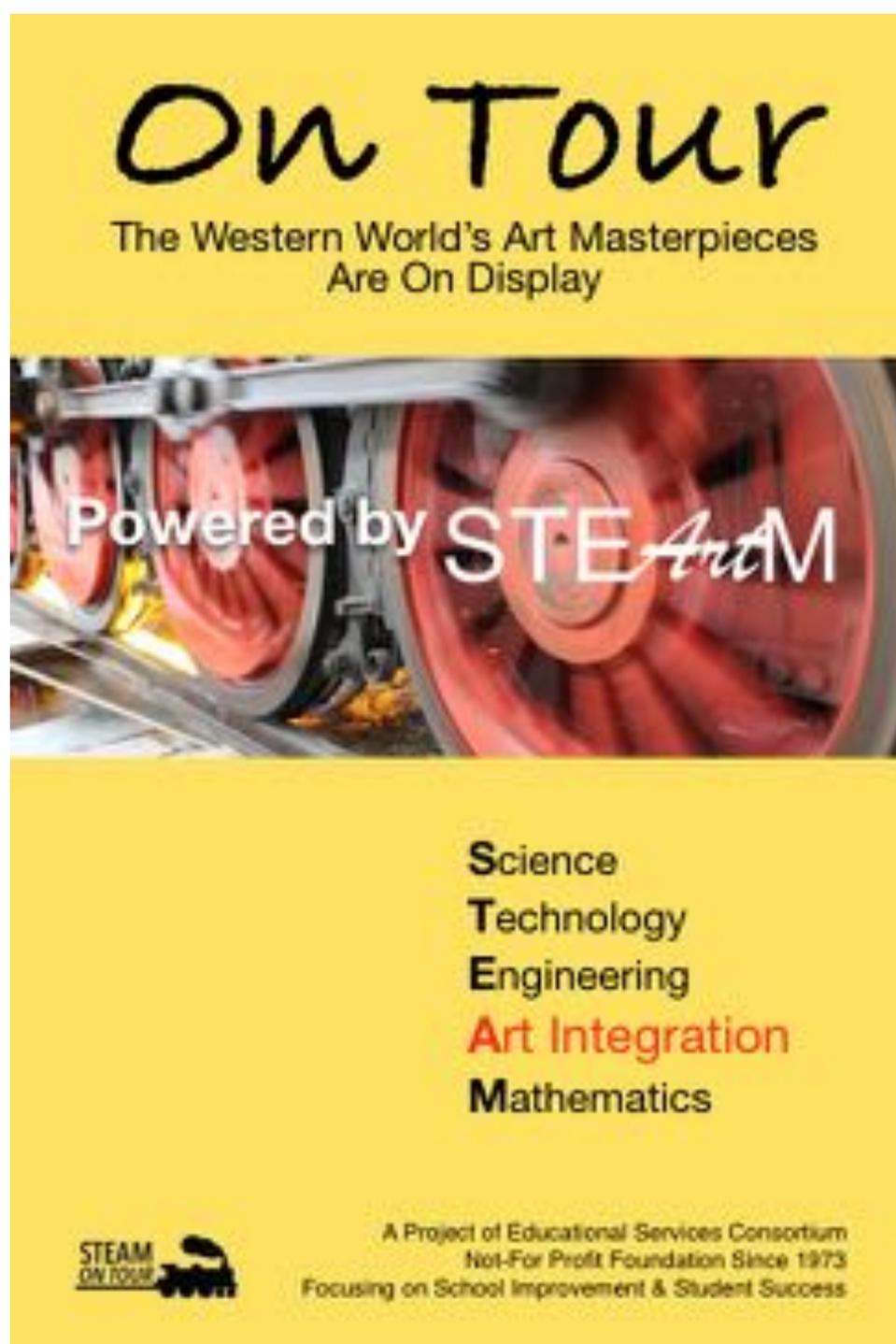
Schools receive a digital copy of the entire contents of the guidebook. Teachers may edit, copy and distribute the content within the school building. A friendly Creative Commons license explains what's allowed. Teachers may copy and redistribute the guidebook material in any medium or format. They may also remix, transform, and build upon the material. This means teachers can customize and distribute the content to best meet the needs of any group of students. The questions and suggested activities found in On Tour are a starting point. No doubt resourceful educators will generate new and better ways to integrate project content into the curriculum.

Students drawn to the visual arts and to the lives of great artists are rarely the same students attracted to science, technology, engineering and mathematics. Students who aren't naturally talented in these subject areas may be disadvantaged (or disinterested) in a curriculum focused on STEM. Art tells stories. The scene depicted as well as the artist who fashioned it convey information just as words and numbers can. Art integration activities reduce the friction between the creative and the technical. STEAM broadens means of expression and enhances meaning-

making for all students by purposely connecting STEM and the arts. On Tour connects the content and context of a given masterpiece to STEM content and concepts. We view On Tour as an example of supporting the “well-rounded education” called for in the 2015 Every Student Succeeds Act (ESSA) now being implemented in U.S. public schools.

What’s Next?

The guidebook content is currently available only in print, which means students and teachers must have printed copies with them wherever the artwork is located. As you know, the process of correcting, updating and reissuing printed copies can be time consuming and expensive. Ronny introduced me to On Tour shortly after he completed the original materials. I proposed ways we could make On Tour available to those with computers, tablets and smartphones. Relying on my experience with WordPress, I recently built and launched the steamontour.com website. Steamontour.com tells the story of the project in a more vivid way than I could manage here. I invite you to visit and comment!



During the next few weeks, I’ll be converting the guidebook content associated with each of the 24 masterpieces to a format suitable for access via the iPad, iPhone and other mobile devices. A small wall plaque for each masterpiece will list the title and artist, with space to affix a Quick Response (QR) code sticker. Teachers and students with mobile devices and a free QR app can scan the code to link to the corresponding guidebook page on the website. The project will also be available to a wider audience, as anyone with a similar device will have access. Online or not, the On Tour gallery can easily be a public attraction for visiting “tour groups” such as parents, caregivers, nearby schoolchildren, civic and community organizations. The website could also serve as a lesson exchange, where teachers can share, find and download suggested activities related to On Tour artwork.

The STEAM on Tour Guidebook

We'll be seeking grant funding and philanthropic underwriting to defray the cost of providing On Tour to schools and communities. The arts are specifically included in the ESSA definition of a "well-rounded education" for students. This legislation and associated funding streams offer new encouragement for STEAM initiatives.

We're working on linking On Tour content to STEM standards, using the Next Generation Science Standards (NGSS) as our guide. It is much too early to speculate about the impact of On Tour, but we are certain of one outcome. A large measure of On Tour's academic value will come from captivating student activities designed by creative teachers.

More Resources

Looking for more information, tools, ideas and tips for integrating STEAM into your classroom? Here's a few of Dr. Brovey's suggested digital resources:

<http://steamontour.com>

<http://ipadacademy.com>

<http://portableprof.com>



Dr. Andy Brovey is a member of the STEAM On Tour development team. He has more than 30 years experience in educational technology, including teaching, administration and professional development. As a faculty member he taught graduate courses for educators, on site and online. In 2010, he left university life to become an edupreneur. He's been busy since then leading training sessions and creating online resources to help others learn to use technology. He started iPad Academy shortly after the first iPad went on sale and will soon launch Teach About Tech, a resource marketplace for technology trainers. In 2007, Andy was named an Apple Distinguished Educator, joining a global community of educators recognized by Apple for their leadership in technology integration.