



Creation Research in Digital Painting

Department of Computer Science and Information Engineering
National I-Lan University, TAIWAN
Yuan-Jen Ou-Yang

iafor

oyyj.mail@gmail.com

Educational Research & Innovation (ERI 2022)

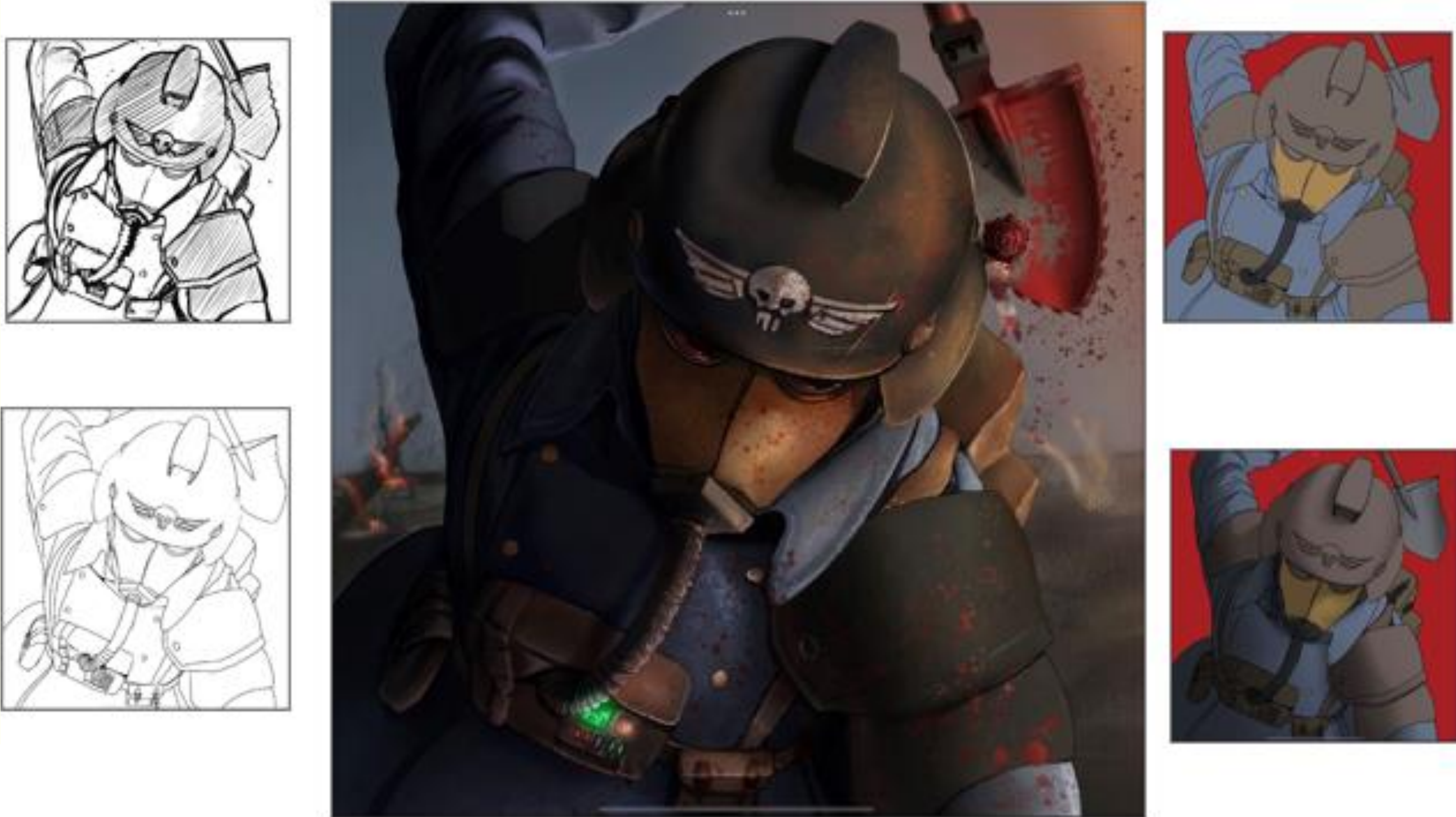
I. Introduction

- From 2019, due to the impact of covid-19 pneumonia, the convenience brought by the Internet age has made distance teaching and learning frequently, which just fits the form of digital creation.
- Additional implementation classes of art education on internet needs to proposed in Pedagogy including
 - Students could create the art works on the Internet, observe, discuss, and modify their works.
 - Record the whole process
 - Put the draft, modifying, final and revised works into picture albums
 - Convert the achievement to the public or commercial demonstration.

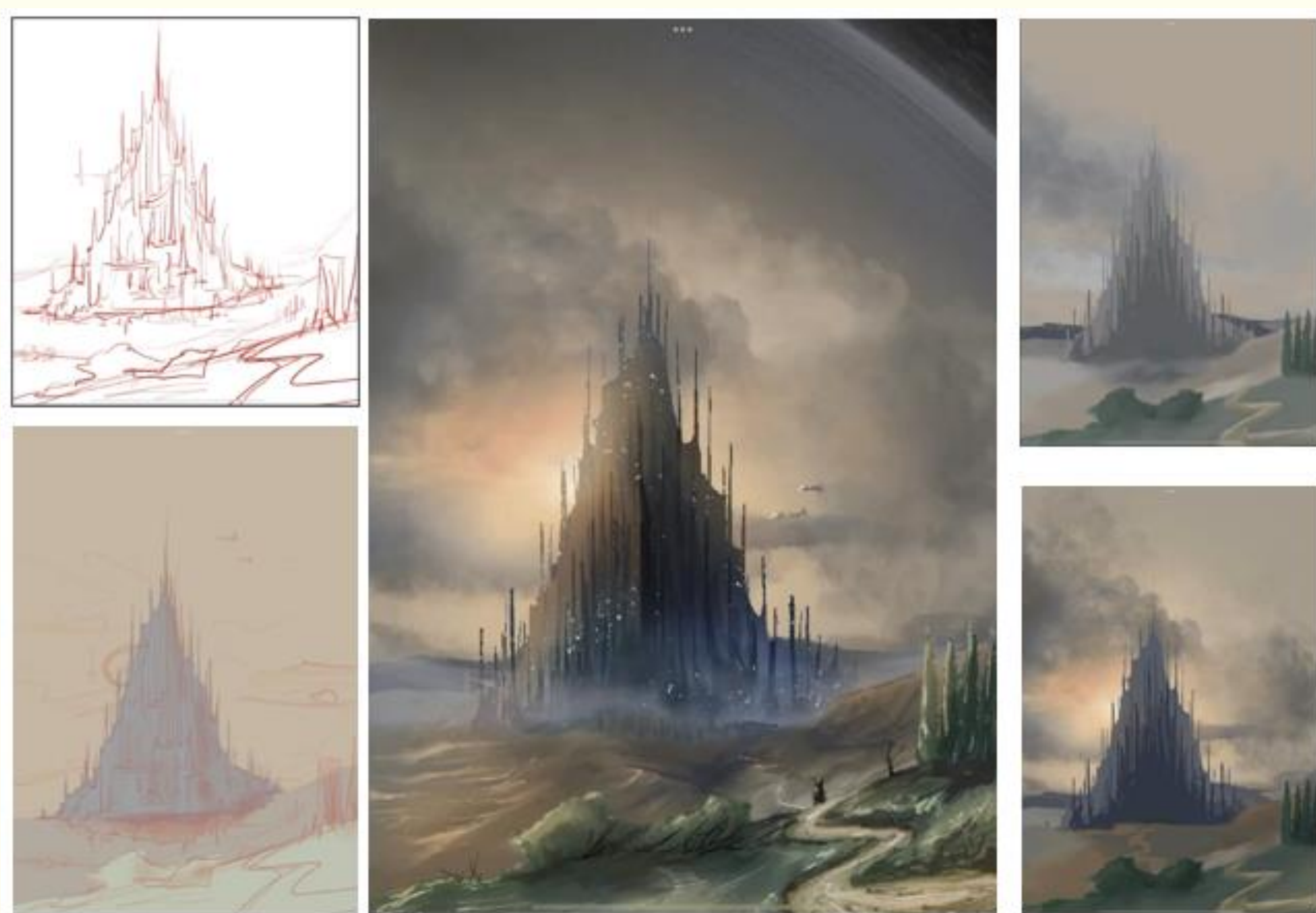
III. Elements

The difference between handed painting and digital painting is found in the use of media and rendering techniques including several elements : rendering, brushes, layers, aspect ratio and color effects.

IV. Practical examples of digital painting



Examples I : Character



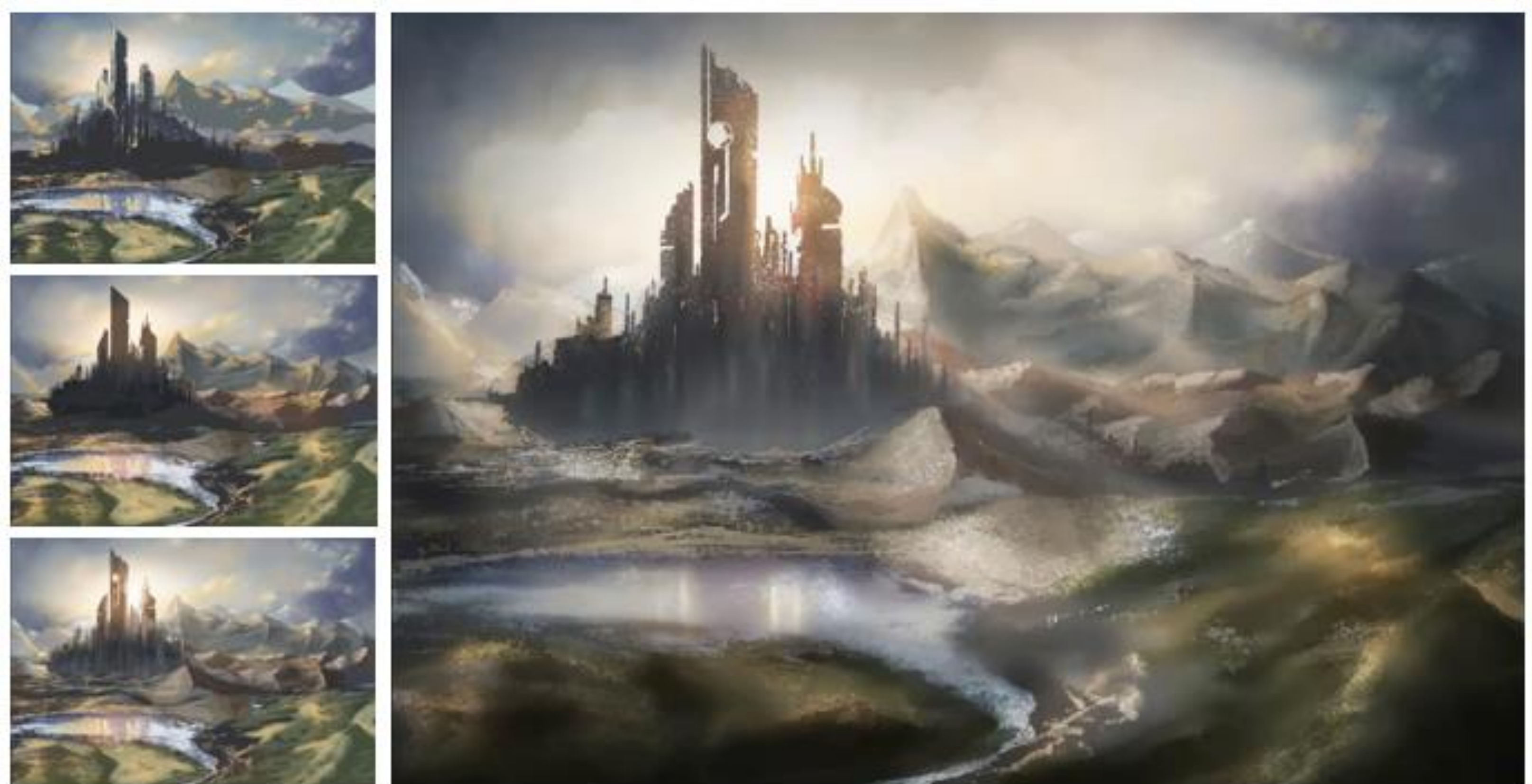
Examples II : Landscape

VI. Conclusions

- Works in digital painting are easy to create, replicate, edit, modify, and save in digital system.
- Digital painting is easy to communicate and publish online.
- It is better to learn digital painting directly than to transfer from handed painting to digital images.
- Characters, painting style, perspective, and composition design in digital painting are easier to change.

II. Handed Painting vs. Digital Painting

	Handed Painting	Digital Painting
Pros	<ul style="list-style-type: none">Hand-painting is quite intuitive for the basics and beginners.Minimal required tools are cheap and readily available.Trained handed painting is recognized to transfer to digital painting easily.	<ul style="list-style-type: none">Simple tools, general an electric drawing board and the corresponding digital pen.Creation quickly and modification easily.Digital drawings could be preserved, transmitted, duplicated, and reappeared.Complicated digital image process and effect is possible.
Cons	<ul style="list-style-type: none">Expensive for special tools, pigments and consumables, etc.,For beginning learners, there are a long trip.Difficult preservation of works, such as moisture, loss, fire, and aging, etc.	<ul style="list-style-type: none">Trained digital painting is not necessarily to be able to transfer to handed painting.Digital painting software needs to be selective and well-familiar.Electricity is necessary.



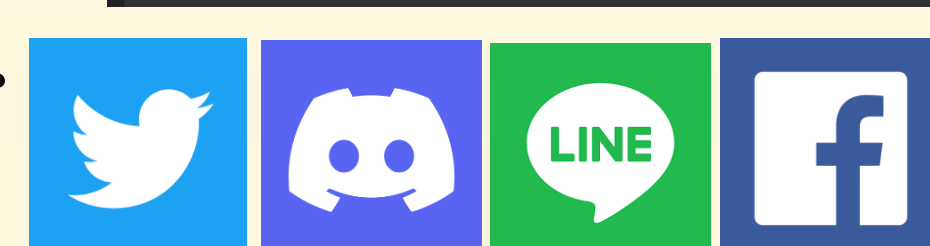
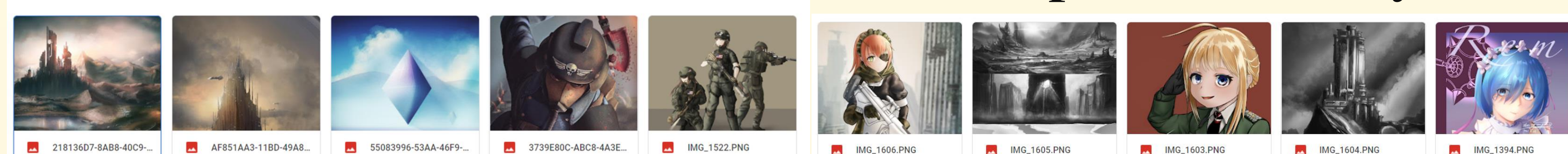
Examples III : Light effect



Examples IV : Object adding

V. Community and Gallery Platform

Connections of the internet and popular community could make the exchange of opinions more convenient and soon. Students and artists would get feedback and corrections faster. The platform would make the artworks modify quickly and accomplish maturely.



Educational Research & Innovation (ERI 2022) in Virginia