

CREATIVE PHOTOGRAPHY USING TSP

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PAINTING

"The idea of beauty is the fundamental idea of everything. In the world we see only distortions of the fundamental idea, but art, by imagination, may lift itself to the height of this idea. Art is therefore akin to creation." - [Leo Tolstoy](#)

1. Introduction

Mankind appreciated all that is beautiful in nature and felt an urge to create beauty through imitation and imagination; and thus art is born. Art is born from the will to express, express what one has experienced, felt and learnt in his journey through the life. Art is a creative process. It originates in a sensitive human soul which cannot help but communicating what it has seen, heard and felt. According to Aristotle, Art is the idealized form of the artist and not the true representation of nature or object. I consider Art as an acronym of Absolutely

Relative Thoughts. Photographic art is born when the artist uses his tools as a means of transmitting his thoughts of



MY PET

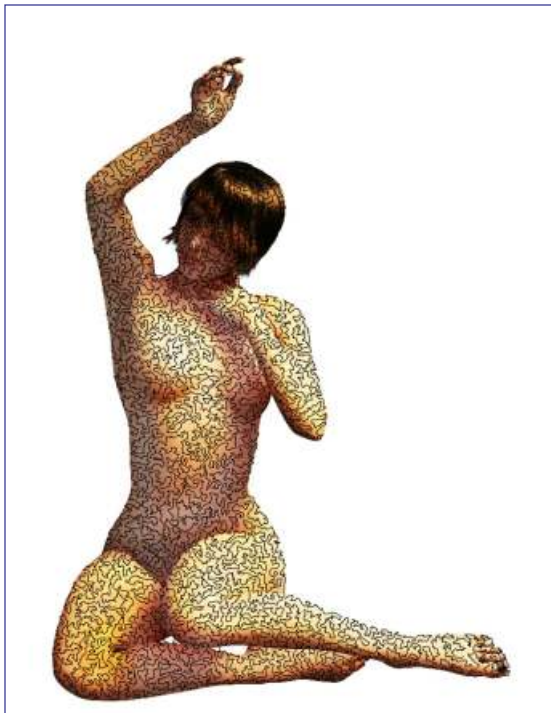
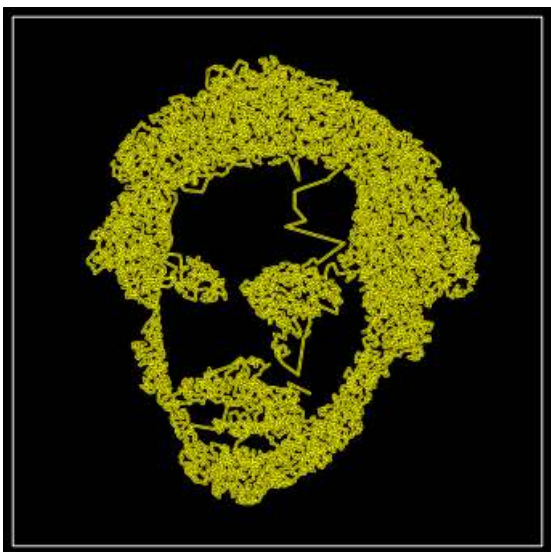


FIGURE STUDY-002

realisation, visualisation and experience in an artistic manner. Even though Photography is the youngest branch of visual art, it has emerged as the most powerful means of communication and avenue of creative satisfactions. Pictorial photography is the particular branch of

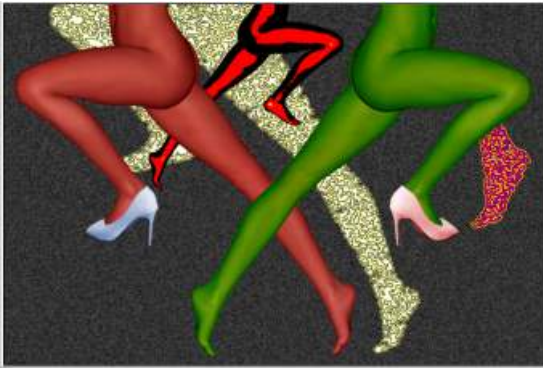


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photography which deals with art or art for which photography is the medium. The word 'Pictorial' has been chosen as the synonym of art. Pictorialism is the method of photographic representation which aims primarily at aesthetics, emotional and intellectual effect. Photography has been enjoying enormous popularity as a medium of art over the last few decades and has emerged as the most powerful avenue for creative satisfaction. With the advancement of Digital Technology in recent years, there has been a sea change in the delivery of Photography. Advent of Digital Photography has reshaped the art of photography to the greatest extent. A sensitive artist can transform an ordinary object into a beautiful piece of art by technical manipulation, imagination and creative visualisation which is simultaneously aesthetically pleasing,



LEGS-9

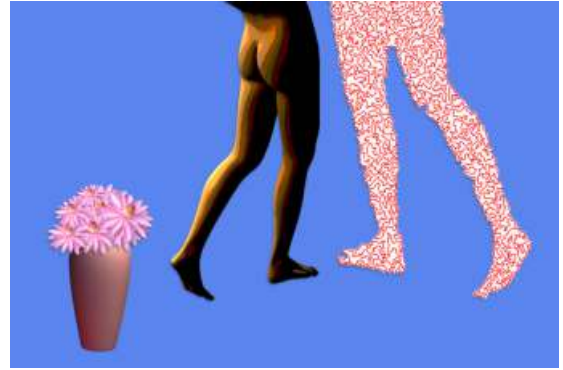
emotionally appealing and intellectually stimulating. A pictorialist does not simply record reality, but produces a visual statement which brings out the theme, story and the feeling behind the photograph leaving viewers startled and forces them to think on it.

2. Creativity

Creativity is a phenomenon whereby something new and valuable is created and it is characterised by originality, expressiveness and imagination. According to Rod Judkins- "*Creativity isn't a switch that's flicked on or off; it's a way of seeing, engaging and responding to the world around you*". Rabindranath Tagore said "*It is the response of man's creative soul to the call of the real*". I think for creativity "Imagination is more important than knowledge" as mentioned by Albert Einstein. I would also like to define "*Creativity is an intellectual process by which*



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LOVE

new, exciting and worthwhile things are created." I also consider it as an acronym of **C**reator's **R**epresentation (of) **E**motional **A**esthetic **T**ranscendental **I**ntellectual **V**isualisation **I**nnovatively **T**ransformed (to a) **Y**ummy.

3. Creative Photography

Creative Photography is the particular branch of photography where the photographer injects his or her creative thought of realisation in artistic line. It is nothing but to see the world in a different way and to present the mundane elements in the picture space in an aesthetically pleasing manner. That is new way of looking at an image with innovative and intuitive mind through manipulation and

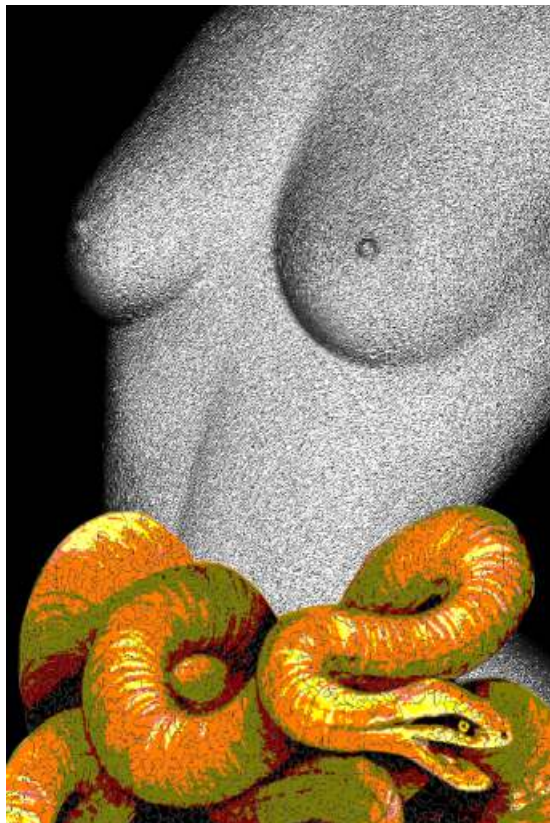


DICOTOMY-2



IT IS LIFE

techniques. Creative techniques aim to show how familiar subjects can be transformed and recreated by an imaginative approach to give it a new look. It may be considered as an experiment using the various techniques available to the photographers. Earlier photographers used to apply various pre and post camera techniques for creative photography. Differential focussing, blurring, panning, zooming in and out, movement, glass textures, streak and many other improvised devices during taking shots as per pre visualisation while many darkroom techniques viz. Combination printing (montage & superimposition), Solarisation, Tone separation, Tonorama, Bas relief, Twist & Twirl, and many such techniques used to be applied as per post visualisation for creative photography. Now with the advent of digital photography we mostly use various editing software for manipulations. Photoshop is the most powerful and widely used software which helps the creative photographers to convert an ordinary shot into a fantastic and amazing visual which was unnoticed before



BEAUTY AND THE BEAST-2A

manipulation. One may also take help of few other software like Daz3D, Matlab, Poser, Carrara, Apophysis, etc.. for creating figures, shapes, patterns and also composite pictures according to his ideas even without going to outdoor or taking indoor shots and then converting created images into a piece of art by manipulation.

In this write-up I will deal with one such technique known as Travelling Salesman Problem (TSP) using computer programming.

3. Travelling Salesman Problem (TSP)

TSP is an interesting algorithm based on well-known optimisation problem known to the students of Operation Research and its application in the field of photography is also available to us for quite some time. TSP as defined by Wikipedia is: "*Given a list of cities and the distances between each pair of cities, what is the shortest possible route that*



FANTASY-123

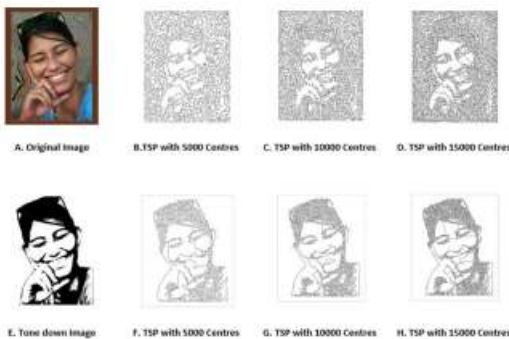
visits each city exactly once and returns to the origin city?"

I am working on TSP for the few months to draw different continuous line drawing for my "Mathematical Photography" for which I had to develop a program with the help of my students Dr. Ammlan Ghosh, Dr. Ms Adrija Bhattacharyya and Mr Bidyut Gupta using Python where I may vary the number of centres, line-width, line-style and colours. Here also I had to go for number of trials by varying parameters to find out the best visual according to my choice.

4. On My TSP Works

I generated few fantastic continuous outlines which were finally edited with Photoshop to have a beautiful appearance in combination with suitable background and the original image or part thereof.

Figure-1: Provides various outputs varying the number of centres of a portrait
I am providing some stages of my work



without going into much detail for easy understanding of my readers as follows:
Figure-2: Demonstrates the stages of a particular work 'Philosopher'

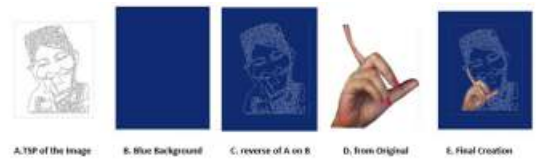
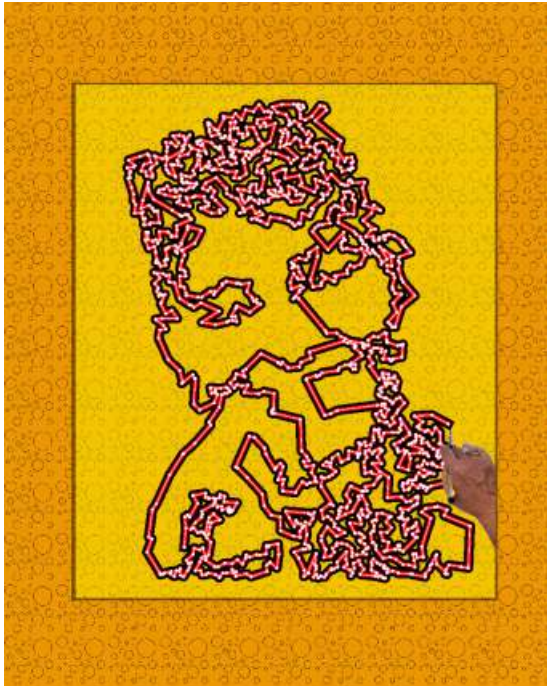


Figure 3: Stages of another creation 'Fantasy'



'Fantasy' depicts the figure of a lady wearing vibrant red colour jacket, beach hat of analogous colours, a very neatly designed elegant skirt of sober colour and stilettos high heels. Other than the jacket and high heel shoes of the lady which are the real objects, judicious and thoughtful conversion of all other elements created using computer aided tools like TSP and Matlab, makes the figure of an elegant, dignified and beautiful lady. It is an allegorical representation of an amazing lady. This wonderful creation from a simple mundane object, a red jacket hanging from a string, is made possible using the great imaginative power, master



THE ARTIST

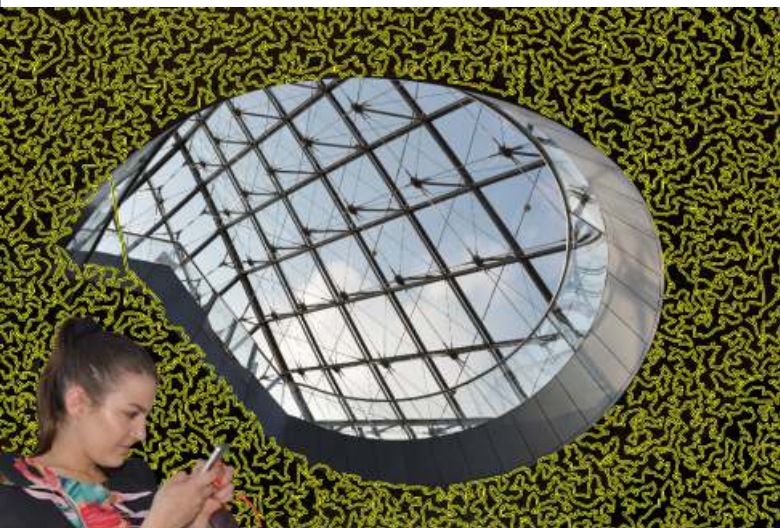
technical skill and unique sense of colour combination and compositional concept. A simple mundane object is transformed into a piece of sublime beauty by creative expression and technical skill of the artist. A few more examples of creative photography using TSP are included herewith. **(P1-P16)**

5. Conclusion

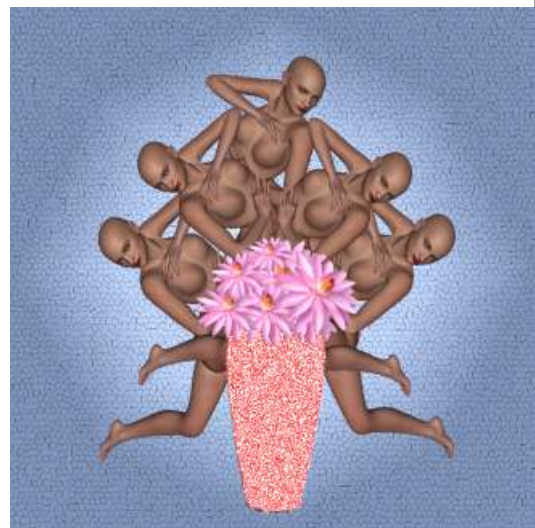
There is neither any hard and fast rule nor technique to produce creative photography nor is there any specific guideline or step for creative photography, because – creativity cannot be taught, it comes from within. But it is a fact that those who create some of the most creative photos in the world, have great passion for photography and art in general as well as creative mind. Creative techniques help them expedite their creativity. Modern digital technology with various editing tools will go a long way to promote and propagate creative photography as a form of visual art trailing other forms of artistic medium. May TSP technique go a long way to produce wonderful creative photography as a visual art! Let Creative photography as a form of Visual Art form continue to bring pleasure, peace and tranquillity to the sensitive soul of the viewers and prosperity and happiness to the society through newer creations.

6. Acknowledgement

I express my sincere gratitude and heartfelt thanks to those who directly or indirectly helped me in preparing this article.



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