My Photography portfolio

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INTRODUCTION

Hi! My name is Christiyan Borisov. I am a second semester student and Fontys UAS studying Information and Communication technology with Media Design. This photographty portfolio was made for the subject called "Media production". In this "catalogue" you can find my best photos, from each type. Photos without referral link are my original products. This whole catalogue is made by me and it is my own original work!

Each different segment will include my photos together with description and notes. In the table of contents are included all different types of photos athis catalogue. In each page you can find the different settings and methods that I have used in order to achieve these images.

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THE EQUIPMENT

The camera provided to me by fontys was a Canon EOS 850D. The camera came with its factory lens, a 64GB SD card and a charger. The device is a model that came out in early 2020 and has the following specifications:

- 22.3mm x 14.9 mm CMOS Sensor
- 24.10 megapixels
- DIGIC 8 Image Processor
- Factory lens with 5-axis Digital image stabilisation
- ISO range from 100 to 25600
- Shutter speed: 30" to 1/4000
- Display: Vari angle touchscreen 7.5 cm (3.0") 3:2 Clear View II TFT
- Shooting modes: more than 21 different selections including auto modes and manual modes
- Colour Space: sRGB and Adobe RGB

For this task the main modes the camera will use are AV (aperture-value) and TV (shutter-priority). The application used to create this photography portfolio is Adobe InDesign. Pictures without reference link are original pictures.

When it comes to equipment, an extra tripond rented from Fontys's ISSD was used.

Source: https://www.amateurphotographer.co.uk/reviews/dslrs/canon-eos-850d-review

This task requres to find hidden faces. These faces can be parts of buildings, different objects or they can also be improvised as long as there are elements in the picture that form a face - two eyes and a mouth.

The hidden face in this picture is located at the main entrance in the center of the building. The main gate serves as the mouth and the two windows above the entrance serve as the eye holes.
The building is located in the centre of Brussels

The face of this building can be depicted at the roof. Two windows serving as eyes and a circular window below serving as a mouth. This face hides a scared emotion. The building is also located at the centre of Brussels.

This face is located at the right half of the image next to the centre.
The reason I have included it here is because the face looks like the character of game "Doodle Jump"

Source: https://www.pngwing.com/

HIDDEN FACES
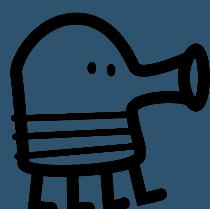
The following face was depicted at cathedral "Saint Michael and Saint Gudula" located in Brussels, Belgium. The face is right at the centre of the building. The face also depicts a screaming motion with a wide-opened mouth.

Last face I have included in this catalogue is an experiment. Wanting to make an original face photo, I put my own glasses on a trash bin in order to simulate a frowny face. Here a motion is depicted and also there is another object used for the photo as compared to the previous ones, which were different buildings.

Refraction

Making photos that hide a face was indeed a fun and interesting task. The biggest struggle was to find something original. The problem most pictures faced was that in many cases the background was overexposed. This was inevitable because many times the sun is right behind the buildings and also the buildings are darker in color.

The setting I have mostly used was "Aperture priority" (AV). Usually taking pictures at an aperture of around F5.0. The reason being is that I don't want a blurred background and that this style is considered as a "general photography". And mostly the ISO was set at around 100.

The so-called "waterfall effect" happens when the camera's shutter speed is set to very low and the sensor is exposed for a prolonged period of time, resulting in collecting more image information and overlaping many frames on one image. The result is an image with blurred moving objects.

For this style of photography is recommended that a tripod is used. The reason being is that is the camera is shook only a little, the whole image will be blurred.

This photo was one of my first attempts in this photography style. The photo was taken on the Eindhoven's ring road. The image properties are: ISO 100 and exposure time was 10 seconds.

This photo was also taken on the Eindhoven's ring road. Here the image's exposure time was 30 seconds.
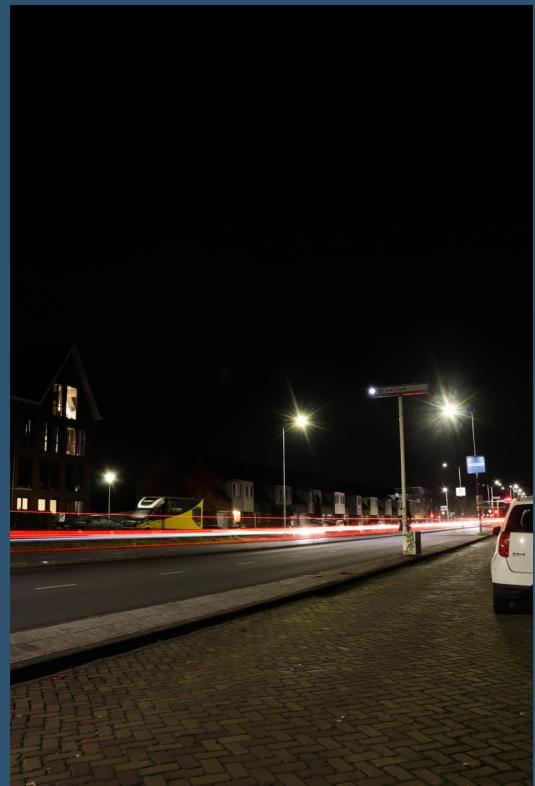
What did I notice?

The lower the shutter speed (the more time the sensor is exposed), the more light it collects. This means that parts of the images become overexposed.
There are two ways of fixing this error - either later manipulate the image in Adobe Lightroom or manually adjust the brightness setting of the camera. When the brightness is lowered to -1, the image becomes more natural. Such example is the second picture made on the ring road (the one above this text).

The highlited areas in this image are a perfect example for an overexposed parts. This imge was taken without any brightness manipulation.

High vs Low shutter speed

Low shutter speed

Details:
Exposure: 10 sec.
ISO: 100 (auto)
Aperture: f/4.5

- Images become partly overexposed
- Brightness correction should be made in order to achieve the waterfall effect
- Camera should be on a stable surface

Mid shutter speed

Details:
Exposure: 1/50 sec.
ISO: 6400 (auto)
Aperture: f/4.5

- Suitable for general night photography
- Mooving objects become blurred
- Images can become underexposed

High shutter speed

Details:
Exposure: 1/640 sec.
ISO: 6400 (auto)
Aperture: f/4.5

- Not suitable for night photography
- Mooving objects become less blurred
- Images become very underexposed
- This mode is better used with better lightning conditions

Conclusion

The lower the shutter speed, the more exposed the image becomes during night photoshoots.

The waterfall effect style of photography is indeed one of the most interesting things that I have done. However, in order to achieve the best result, many attempts must be made. In order for me to get these couple of images (including the main page's background), I had to make more than 200 photos, each

A personal favourite

This photo was taken above John F Kennedylaan boulevard. A tripod was used and the brightness was set to -1. Only problem was that it was windy and it was hard to keep the tripod still. It took 17 attempts to achieve this

CAMERA PROGRAMS

Program AE mode

This mode automatically sets ISO, Shutter and Aperture. This mode only allows brightness adjustments and nothing else. It is great for beginners in photography, which don't know yet how to manipulate the values shown above.

Shutter priority (Tv)

This mode customizes in how moving objects look - flowing or frozen. The mode allows the user to adjust shutter speed, brightness, method of focusing, timer and focusing position.

This mode is good for taking photos focused on moving objects. From there the user adjusts how focused or blurred the object is. The longer the shutter speed - the more blurred the objects and the harder the photos are to take (because the camera has to be held as still as possible).
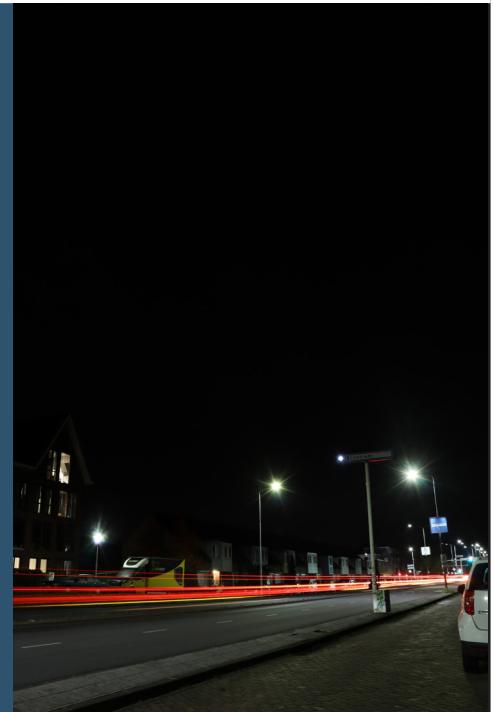
Aperture priority (Av)

This mode lets the user customizes and adjust the level of background blur. The mode allows the aperture to be adjusted - the lower the aperture, the more blurred background (and the higher the aperture level - the more focused the camera is at the background). Also a timer can be triggered, brightness level can be adjusted, focusing position and method of focusing.

This mode is good for taking landscape photos, portraits, etc. Aperture priority can also be used for general photography. This can be done by setting the aperture level to f/5.0.

Sport mode

Sport mode is a mode that is made for specifically shooting objects in motion. The mode constantly focuses while in use and it doesn't take a single but rather miltiple images at once. It is a simpler alternative for TV mode.

Portrait mode

As the name suggests "Portrait mode" is a mode made specifically for taking pictures in portrait orientation. Such pictures are suitable for photographs. It takes specific situations for this mode to be used, but it is there. and it is easy to use.

Macro mode

The Macro mode is good for taking macro photos. Such photos are suitable for close up photography (usually flowers and plants). This mode is great for beginners and pretty much every picture turns out great.

This picture is my very first attempt at macro photography.

Pictures that suprised me

This image was an attempt at working with the waterfall effect. I usually kept the ISO at auto, however here I wanted to recreate a certain effect. The effect is that lightsources look like stars. A tripod was needed for this image and the image properties should be the following in order to achieve this effect:
- Use TV mode
- Shutter speed 30" to 10"
- ISO above 600

The following image was taken in RAW file format and later edited in Adobe Lightroom Classic. Below are the results of before and after the image edit. The final result turned out a bit oversaturated and overedited, however I really liked it at the end.

**Before edit (RAW)**
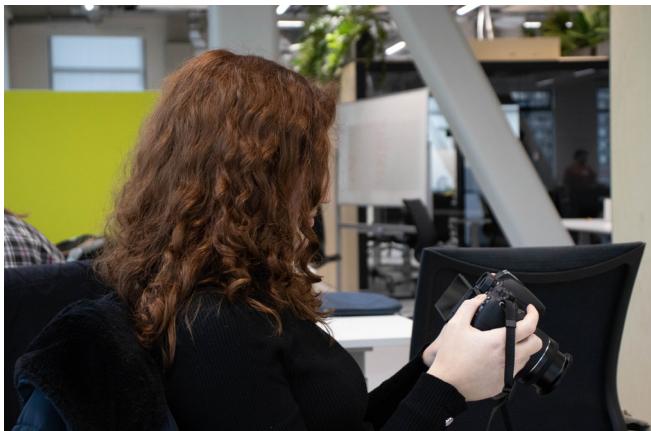
After edit (JPG)

What is depth of field?

The depth of field (DOF) is the distance between the nearest and the furthest objects that are in acceptably sharp focus in an image captured with a camera.

What is bokeh?

In photography, bokeh is the aesthetic quality of the blur produced in out-of-focus parts of an image. Bokeh is often most visible around small background highlights, such as specular reflections and light sources. However, bokeh is not limited to highlights. Blur occurs in all regions of an image which are outside the depth of field.


focused

out of focus

highly distorted focus

These images were taken, aimed towards the same point. The way the bokeh effect was achieved was the following: Use any mode, but make sure night images are visible. In order for the effect to be achieved, the focus should be set to manual. After that, the more the focus is distorted the more blurred background the image has.

This effect is a great experiment for starters in photography. Pictures rarely turn out unsatisfactory. This effect also allows for objects to be brought in the foreground. Leaving the background with blurred dots and having an object in focus in the foreground makes a very interesting and beautyful effect.
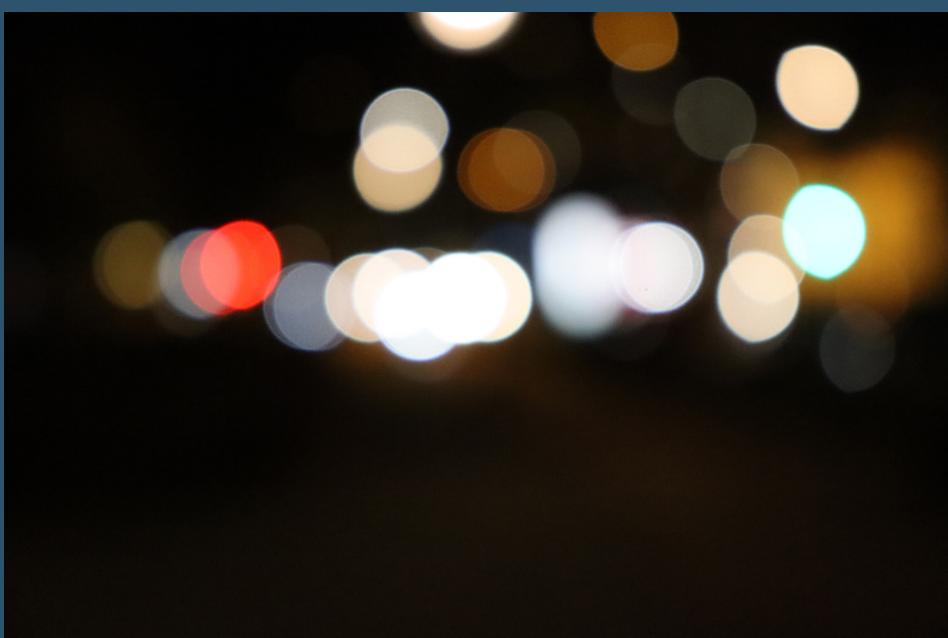
The best way to achieve the bokeh effect is by lowering the brightness. That way the background pops up more and the result is better.

Fun fact: the circles are not a perfect circle, because they represent the shape of the camera's aperture. And the aperture is not a perfect circle.

Personal Favourites

This image was taken in the centre of Eindhoven, during the lights festival in late November.

This image is one of my favourites when it comes to DOF photography examples. In this photo I was able to achieve the bokeh effect in the background and still have a focused subject in my foreground. Colors are well balanced, the only problem being the light from

This photo was also taken at the lights festival in Eindhoven.

What I like about this picture is the effect of the focus and the background. First of all both the building and the tree are in focus and almost feels like the tree is as big as the building. The tree is in the foreground. Then we have the building in the middleground with the only error is having a bit of overexposed colors in the middle. And at the end we have a background which is blue and purple-ish. The image was taken at around 22:30 in the middle of the night. There was so much light pollution and that caused the sky to become coloured.

- ISO - 6400
- Aperture - f/5.6
- Shutter speed - 1/10"

My conclusion

The higher the aperture, the clearer and more focused the images become. However, if you want to shoot an object in the foreground it is very hard to do so. This style of photography is easy but only if you focus on one thing (light sources if doing bokeh effect). If you try to capture something in the foreground, you will need many tries to achieve satisfactory result.

In this segment will be shown pictures depicting building architecture and / or landscapes. Some images will be edited with software and compared to their originals. Also the main techiques for this style of photography will be explained.

Photography techniques

Composition in photography are techniques, used to set up the elements of a picture. These are the techniques which resembles the way we humans normally see a view. Some of the main techniques that are: Symmetry, Golden ratio, Framing, etc.
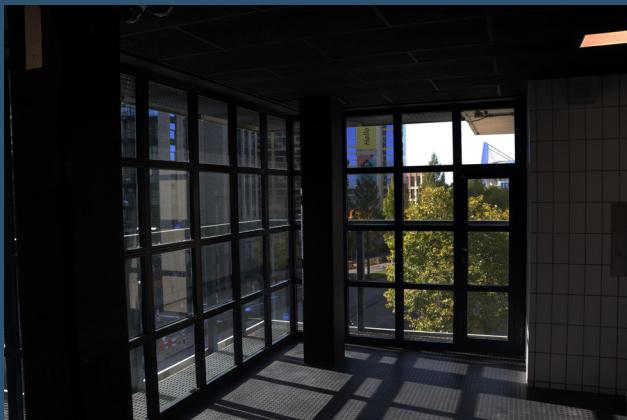

Framing - framing in photography simply refers to a compositional technique that helps bring attention directly to your subject, by blocking off part of the image to form a frame around a point of interest in your photo.

< This image is an example of this techique. The windows here are used as a frame. While the attention is concentrated on what's outside the windows.

Viewpoint - When it comes to the composition, viewpoint refers to the location from which the picture is taken. By extension, the photographer's viewpoint is also the viewpoint of whoever is observing the picture.

Exposure - allows photographers to override exposure settings picked by camera's light meter, in order to darken or brighten images before they are captured. That way certain elements of the image po up and become more noticable.

DOF - distance between the nearest and furthest elements in a scene that appear to be "acceptably sharp" in an image. That way the background becomes more blurred and the element up front pop us more.

In the picture on the left there is also considerable ammount of background compression.

Personal favourites

This image was taken from next to the Eindhoven police department, partially depicting the Eindhoven stadium and parts of Strijp S.

ISO - 100
Exposure - 1/50"
Aperture - f/18

Image is not externally edited.

What I really like about is is the colours of the image and the good balance between them. This image was taken on my first photoshoot.

This image was taken at the centre of Brussels, next to the bus station.

ISO - 100
Exposure - 1/250"
Aperture - f/8

Image is not externally edited.

What I really like about this is the colours of the image and the balance. There is a bit of overexposure in the background building, however it is not a problem, because it gives more aesthetic to the image.
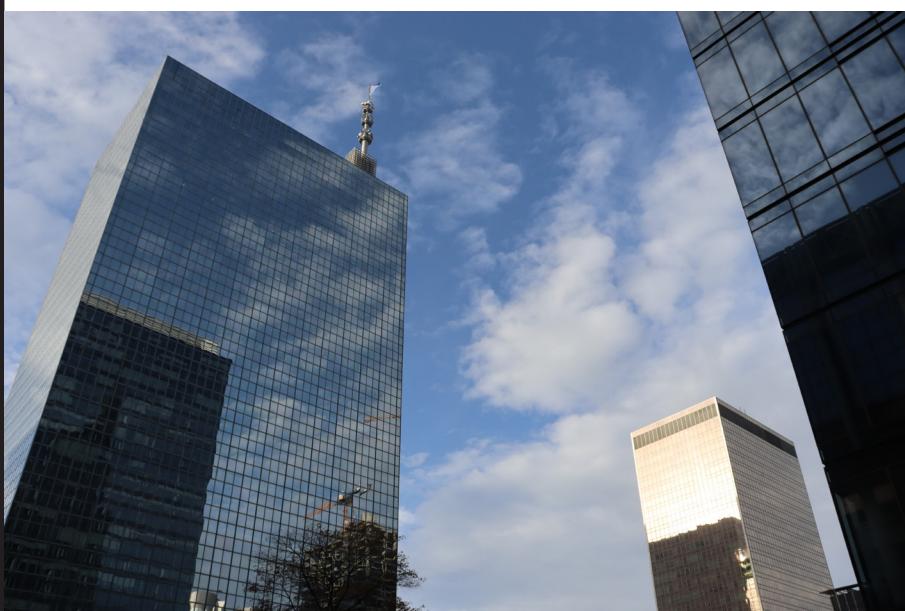
This image was taken at the centre of Brussels, next to the Hilton hotel.

ISO - 6400
Exposure - 1/60"
Aperture - f/5

Image is not externally edited.

What I really like about this image is the fact that is a night photo and taken in low light. The yellow-ish tint gives warmth to the photo and it is a bit different than the others. Also here colors are well balanced.
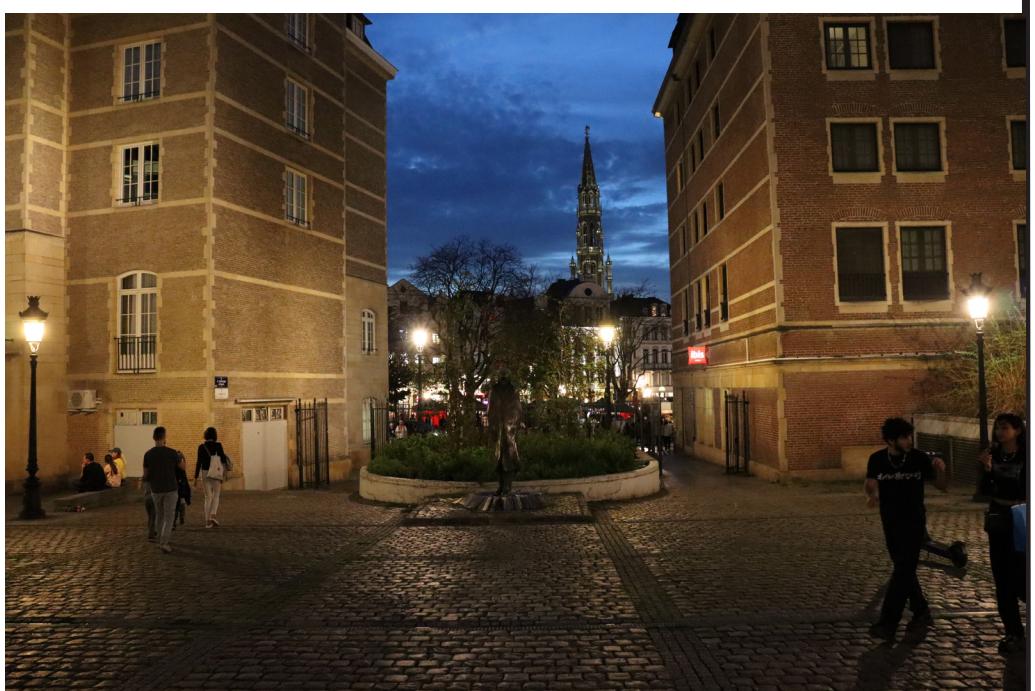
What is a photo composition?
Photo composition is how a photographer arranges visual elements within their frame.

There are many different compositions, however in this segment of the portfolio, I'm going to cover only the main ones.

Symmetry - In photography symmetry appears when parts of your composition mirror other parts. It is created when two halves of your scene look the same and balance each other out.

The photo on the right is an example of symmetry in photography. This is the inside of a roof.
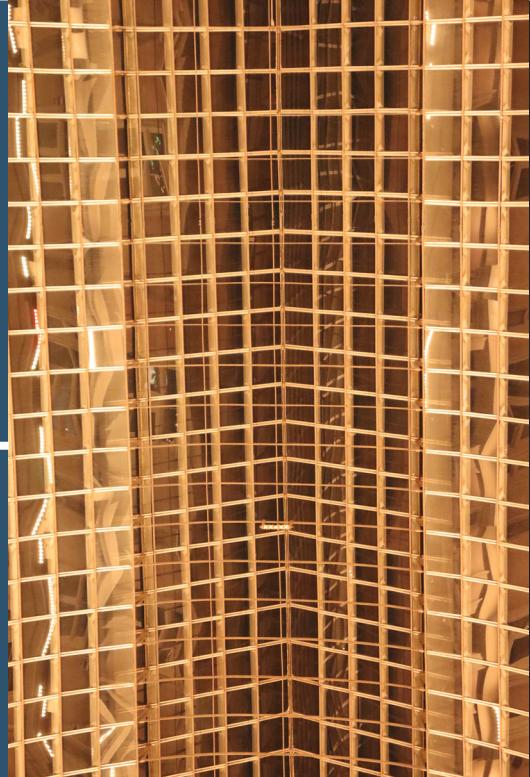
Black and white - Black and white photography removes any distraction of color and helps the viewer focus on other aspects of the photo, such as the subject, the textures, shapes and patterns, and the composition.
The photo below is an example for this specific composition. The image was taken in the centre of Eindhoven.
There is also a composition called "Leading lines" depicted in the very same photo.
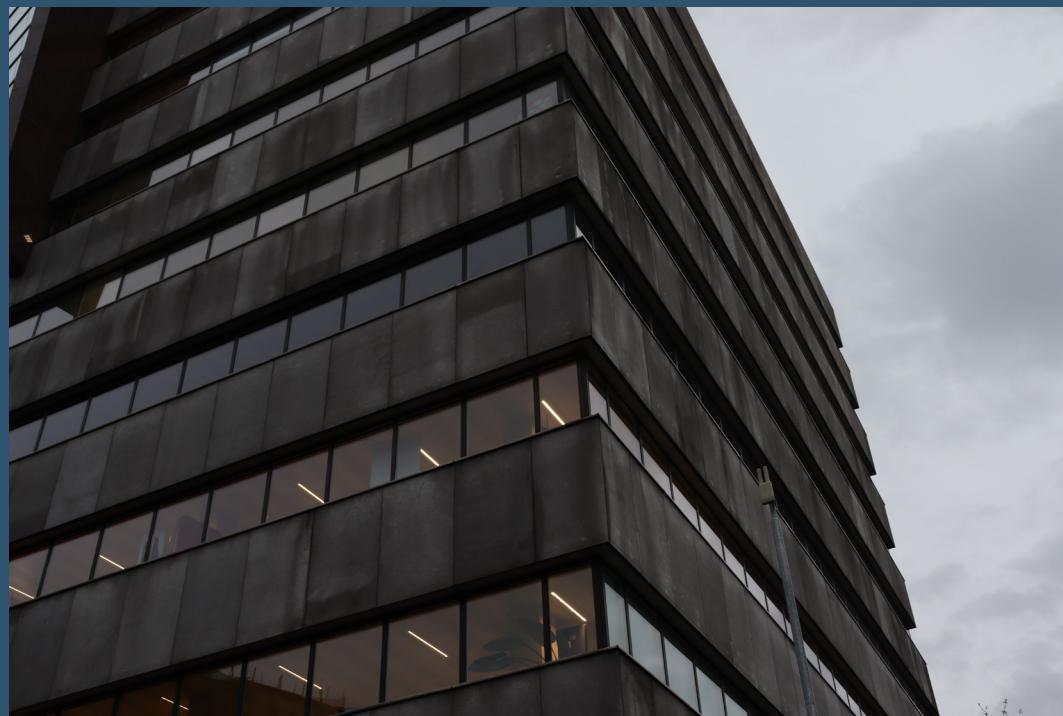
Rule of thirds - he rule of thirds is a composition guideline that places your subject in the left or right third of an image, leaving the other two thirds more open. While there are other forms of composition, the rule of thirds generally leads to compelling and well-composed shots.

In this image I have added a grid, dividing it into thirds. As we can see, my focus falls on the building with the yellow scaffolds. This building falls in the right 2/3 of the image. A thing I also like about this image is the great color balance and exposure.

The golden ratio is a guide to where to place a subject (a tree, person, building, etc.) or element in a photo (like the horizon) where it will be most pleasing to the eye. That divine ratio is 1.618:1.

In this image the golden ratio spiral starts from the body of the person, which is the furthest and gradually increases and perfectly aligns with the back with the person that is closest to the camera.

Foreground/Middleground/Background
All of these three are depicted in this image. Foreground is the bushes, the middleground are the people in the middle and the background is the white building in the centre.

BACKGROUND COMPRESSION

What is background compression?

Compression is the "compressing" of a scene - a phenomenon in which the background appears to be closer to a subject and larger in comparison than it actually is.

What camera lens?

In order to achieve this effect, the camera must be equipped with lens, capable of different focal lenghts. For this exercise I used the Canon's combined lens.

Without background compression

With background compression

This was my very first try doing the background compression effect. As we can see on the first picture there is a lot going on in the background. This means that the viewer might shift their focus there and not on the subject in the foreground. On the second picture however, the background is "compressed". It has less detail and the subject is the only focus in the image.

In short terms, this effect makes objects in the foreground pop up more, by compressing the background.

This image is also a good example of background compression. The way the can is positioned as compared to the background feels unnatural. However, the whole focus of the image falls on the can.

The way this effect is achieved is by going back as much as possible and zooming in on the subject as much as possible. The trickiest part is that if you make multiple pictures "before and after", it is hard

to achieve the same height of the subject in both of them. Also that's why there isn't a second picture of the can for comparison.

More examples

This image was taken at the centre of Brussels. On the first image we have overexposed parts. However, on the second image there is much less overexposure, background is clearer and the subjects in the middle are more detailed.

Overall using this method makes the image clearer and more professional.

Aperture - f/5.6
ISO - 160, 200
Exposure - 1/80" 1/125"

Another example is this set of images of my moped. The first image is taken 4 meters away from it and the second image is taken more than 10 meters away from it. We can see that the second image is more clearer, the whole focus of the viewer falls on the moped. Also the road sign is depicted points towards the subject, which gives it aesthetics.

My Conclusion

Background compression is an easy trick to make certain object pop up more in the picture or overall make picture look more professional. It is easy to achieve and it is great for starter and amature photographers. This method works especially good when taking portrait of people.

WHITE BALANCE

What is white balance?

White balance is used to adjust colors to match the color of the light source so that white objects appear white. Subjects may be lit by a number of different light sources, including sunlight, incandescent bulbs, and fluorescent lighting. Light is measured in Kelvin (K). It varies between 1000K (warmest) and 10000K (coldest). Fun fact domestic light bulbs contain information about their warmth on their boxes.
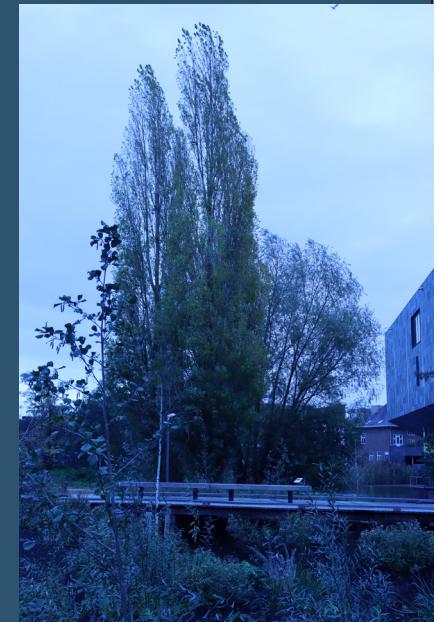
| 1000K | Around 4000K | 10000K |

This is my example of difference between the Kelvn difference in photos. The image in the middle was taken on automatic setting. That way the camera decides which is the best setting for white balance. That's why this image looks the most natural.

The first image was taken with manually adjusted white ballance which was the lowest K possible. However, it doesn't look that different. This effect may be due to the cold and darker weather setting at the time of the photo.

The third image was taken at the highest K option. The result is the picture having a blue tint to it.

In this image I have selected the highest and the lowest K available. The first image wiht the blue tint looks quite unrealistic and almost like a scene of a horror movie. However, on the second image, where the K value is set to 10000, it looks quite natural. It almost gets the so-called "Mexico effect", where there is a yellowish tint to the image.

And here is the same image with atomatically selected white balance value. Here the value is around 5000K and this is the most natural way this image was captured. There is a bit of overexposure at the top of the image, however the purpose of this image was to show white balance differences.


Edited externally

The image on the left is and image taken in the fileds outside Eindhoven, depicting a tree and a bull. The image has some overexposure, however I have edited it through a software in order to compare warmth after externally manipulating it. The two trees below are the result.

As we can see, editing images with software is harder and the result comes out even worse. With higher Kelvin the images look OK, however with lower Kelvin value images become...unnatural and even bad

The blue tree has blue-ish outlines around the more detailed areas and the area with the least impact is the centre of the tree.

While the yellow tree actually looks good. Only the parts next to the sky are partially distorted.

Warmth -50%   **Warmth 80%**

PORTRAIT PHOTOGRAPHY

What is Portrait photography? - Portrait photography, or portraiture, is a type of photography aimed toward capturing the personality of a person or group of people by using effective lighting, backdrops, and poses.

This portrait was taken with the consent of my tutor. In a nutshell, this image was a pure experiment, however it turned out really good. The lightning condition is good and colors are on point. The portrait was taken using aperture priority and the settings for the image are the following:

ISO - 800 (auto)
Aperture - f/5.6
Exposure time - 1/80"

What I noticed with this picture is that the key to a good portrait is good lightning conditions.
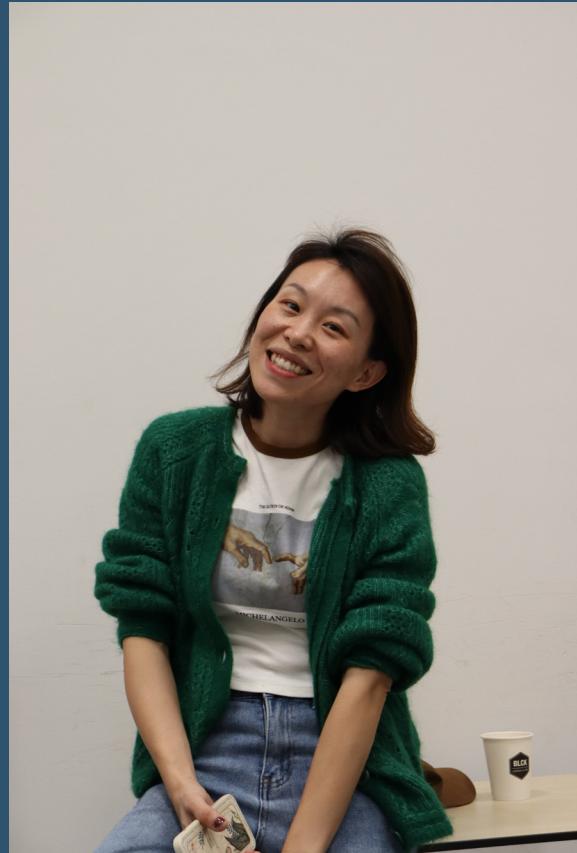
Here I have used the camera's built in flash. This led to the image being a bit overexposed and the colors look a bit pale. However, if the situation doesn't have a better light solution, camera flash is the way to go.

Image settings
ISO - 3200
Aperture - f/5.0
Exposure-1/60

The idea of the image was to be a quick portrait.

These two images were taken in a professional video and photo laboratory. External light sources were used for them and a custom black matte background. The idea here was to make images with less contrast, making bigger use of the background.

The results are really good. Images have well-balanced colors, sharpness and depth.

I have used aperture priority for them and the setting are the following:

ISO - 3200
Aperture - f/5.6
Exposure time - 1/640"
Brightness: -2 step
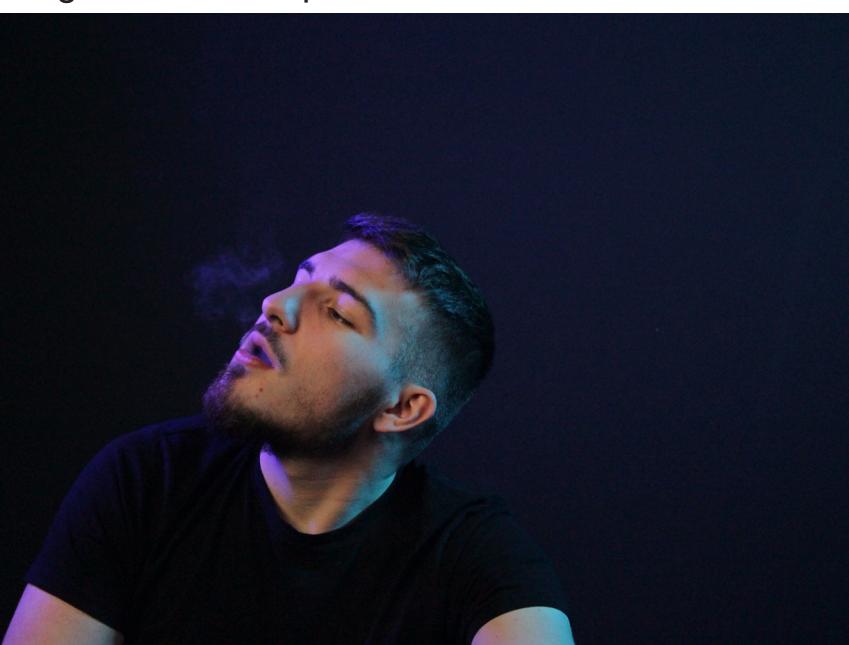
Same settings were used for all 3 of these pictures. There is a little noise to the images, however it is not noticable unless zoomed in. This is due to the staggering of the camera in low-light conditions

Same settings were used for all 3 of these pictures. There is a little noise to the images, however it is not noticable unless zoomed in. This is due to the staggering of the camera in low-light conditions

What is ISO?

For digital photography, ISO refers to the sensitivity of the camera's sensor. The ISO setting is one of three elements used to control exposure; the other two are f/stop and shutter speed.

What is camera noise?

Image noise is random variation of brightness or color information in images, and is usually an aspect of electronic noise. It can be produced by the image sensor and circuitry of a scanner or digital camera.

Camera noise does effect images however, the smaller the image, the harder is to notice.

The image on the right was taken with an ISO value of 4000, which is around the middle. The camera chose this setting. After that I made 2 more images with ISO of 250 and 25600. What I noticed was: the higher the ISO value, the bigger file size of the images
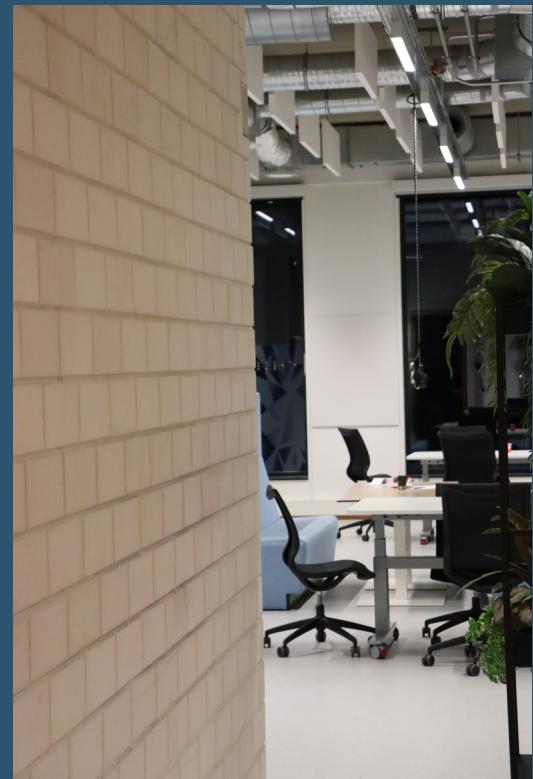
Below you can see the different ISO values of the same image. We can see some difference in the sharpness .

ISO 250
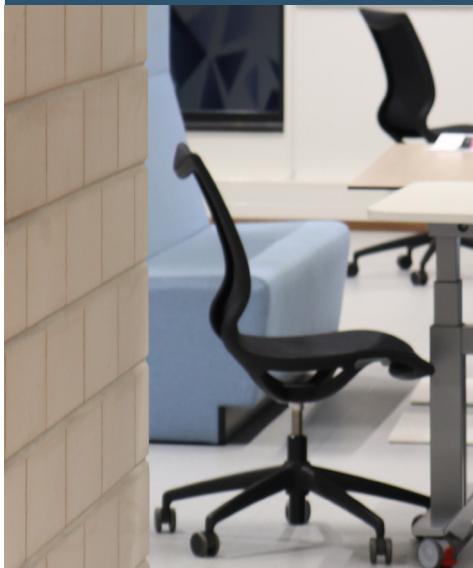
ISO 4000

ISO 25600
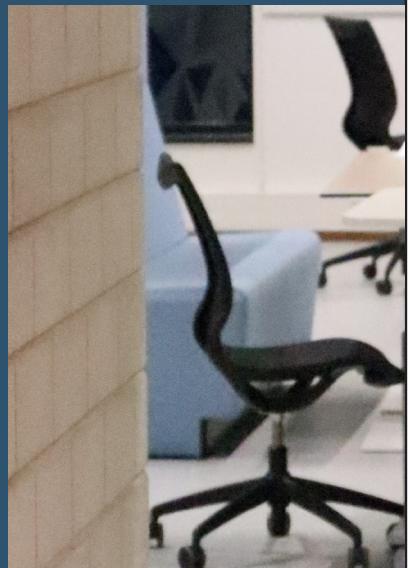
Below you can see the different ISO values of the same image. We can see some difference in the sharpness. On the first image with ISO of 250, there is a little bit of blur. Image is not that sharp. On the image with ISO of 4000, sharpness is balanced. On the image of ISO with 25600, there is a lot of noise when zooming in. This makes the image too sharp and it also leads to blur.

Another example

Below you can see the different ISO values of the same image. We can see some difference in the sharpness. On the first image with ISO of 250, there is a little bit of blur. Image is not that sharp. On the image with ISO of 4000, sharpness is balanced. On the image of ISO with 25600, there is a lot of noise when zooming in. This makes the image too sharp and it also leads to blur.

ISO 6400
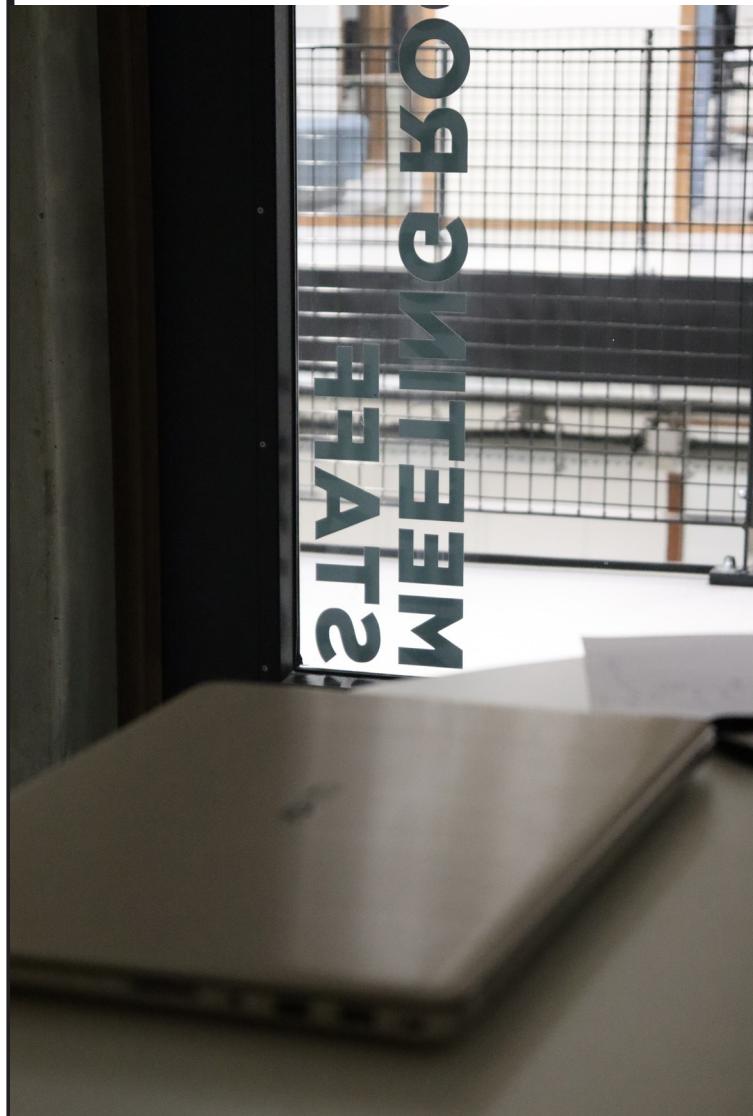
ISO 25600

The conclusion

Did I enjoy photography? Yes, I did! It was fun learning the basics and not only the basics, but more advanced methods of photography such as photo editing.

Will I continue doing photography in my free time? Yes I will. I am now planning to buy semi-professional camera which I can use in my free time as a hobby and not have to rent one from university.

Thank you for your attention!