

Art'n'Leveldesign

*„an article describing my opinion that art and emotions are
an important factor in leveldesign compared to common design“*

an article by
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Introduction

First I have to say that this article is based on my own experiences and opinions. I simply want to define another way to see levels in general. Before I wrote this article I talked with a lot of people - level designers and artists who have never touched a computer mouse, like my last art teacher in school. I was in an advanced art course in school and of course - like every normal art student in school - I hated theory and history of art. In the end I think it helped me to understand my own work at the computer in another, better or more interesting way. Of course there are plenty of intolerant people out there who would never like the thinking of some designer geeks who perceive levels as art, but I don't care about it, especially if I think back in history. Like you already noticed, I'm writing this article in a very personal way simply because art and emotions are in my opinion something very personal and I hope even more people think about it in a similar way after reading this article.

Sorry for the article being a bit long, but I mean the subject matter serious. But I always try to lighten the text with some humor, pictures, small stories and examples.

„Small Tale“

Before I really start, I have to tell you a small tale about my school time, where/why I really started to think about art and level design. Every student in a Bavarian/German secondary school has to do in his 13th year of school a major work on his own. I was able to choose between a project in math and one in arts, and you can bet that the decision was definitely an easy one. Of course I decided to do the work in art. I asked my teacher whether I could do something with the Q3A engine, but of course he had absolutely no clue about computers. After some long discussions and presentations we found something he would accept: „A virtual museum of the 20. century“.

He didn't accept my NS:CO maps because in his opinion I don't solve any kind of creative problems there and simple design is not suitable for this kind of work - no, the intolerant bastard wasn't able to understand anything.

Then I spent more than 3 months working on the problem of how I can translate common 2D art in 3D rooms. Actually, the whole work was pretty boring and very dry, but while I was building the virtual museum levels - with all the knowledge about art theory in my head - I started to think about the possibility of influencing old school art in modern level design. The more I thought about it I was sure that it had already happened.

At the end I got 12 out of 15 points on my work. I didn't get more because I had to add hallways to improve the performance, and my teacher simply said: „If you are not able to make a real museum, you did the wrong work or the technology is not ready for such an experiment!“. Then he told me something about ‚Render‘ or ‚CAD‘, but it looked like he had already forgotten that you should be able to walk through the museum in real time with a normal PC - no, I never liked my teacher.



What is Art/Design ?

Now we have to clear „what is art?“ in general. I just show you what I found in an internet dictionary (<http://dict.tu-chemnitz.de/>) :

art

n 1: the products of human creativity; works of art collectively; „an art exhibition“; „a fine collection of art“ [syn: {fine art}]

2: the creation of beautiful or significant things; „a good example of modern art“: „I was never any good at art“ [syn: artistic creation, artistic production]

3: a superior skill that you can learn by study and practice and observation; „the art of conversation“; „it's quite an art“ [syn: artistry, prowess]

4: photographs or other visual representations in a printed publication; „the publisher was responsible for all the artwork in the book“ [syn: artwork, graphics, {nontextual matter}]

If you read this you might think that making a map definitely matches this description, simply because it's creative or because it's beautiful. Believe me - this would be too simple, especially because it's called level design. Now on the other hand we have to take a look on the word „design“ (<http://dict.tu-chemnitz.de/>) :

design

n 1: the act of working out the form of something (as by making a sketch or outline or plan); „he contributed to the design of a new instrument“ [syn: designing]

2: an arrangement scheme; „the awkward design of the keyboard made operation difficult“; „it was an excellent design for living“; „a plan for seating guests“ [syn: plan]

3: something intended as a guide for making something else; „a blueprint for a house“; „a pattern for a skirt“ [syn: blueprint, pattern]

4: a decorative or artistic work; „the coach had a design on the doors“ [syn: pattern, figure]

5: an anticipated outcome that is intended or that guides

your planned actions; „his intent was to provide a new translation“; „good intentions are not enough“; „it was created with the conscious aim of answering immediate needs“; „he made no secret of his designs“ [syn: purpose, intent, intention, aim]

6: a preliminary sketch indicating the plan for something; „the design of a building“

7: the creation of something in the mind [syn: invention, innovation, excogitation, conception]

v 1: make or work out a plan for; devise; „They contrived to murder their boss“; „design a new sales strategy“; „plan an attack“ [syn: plan, project, contrive]

2: design something for a specific role or purpose or effect; „This room is not designed for work“

3: create the design for; create or execute in an artistic or highly skilled manner; „Chanel designed the famous suit“

4: make a design of; plan out in systematic, often graphic form; „design a better mousetrap“; „plan the new wing of the museum“ [syn: plan]

5: create designs; „Dupont designs for the house of Chanel“

6: conceive or fashion in the mind; invent; „She designed a good excuse for not attending classes that day“

7: intend or have as a purpose; „She designed to go far in the world of business“

As you can see, it's not really easy to say „level design“ is pure ART or pure DESIGN and that's definitely not the intention of this article! In my opinion something is only really creative - and then art, based on the above definition - if it's based on emotions, if it creates emotions or is in a way more or less ingenious or original. It doesn't have to be political, force the viewer to think about something, be based on exceptionally great skills, etc.

Sometimes when the artist wants to show the viewer an intention of his, he submerges it in the background, and this creates the feelings or emotions that he wants to project into the art product.

On the other hand there is e.g. Dadaism: „a nihilistic art movement (especially in painting) that flourished in Europe early in the 20th century; based on irrationality and negation of the accepted laws of beauty“ (<http://dict.tu-chemnitz.de/>). One artist

just turned around a urinal, put it on a table and then it was real art for a few days. I don't expect that anyone really understands this, but in some way it was freaky and ingenious - he was simply the first one.



If we want to be serious, common level design is definitely more design than art, but in my following text I try to give you impressions and ideas on how to change this a little bit - otherwise it will become boring or cheap. As a level designer you should always have the wish that your work will become something more interesting, not just a bunch of bits where some kids play slaughterhouse.

When is the time to bring art in design ?

After we clarified the different terms we should think about how we can add more art and emotions to our levels. One important factor is simply to give a specific scope for development. It is absolutely impossible to be creative in any way if someone else designates in detail what you have to do.

Another death for art is if you have to do an exact copy from a photo or another game/etc. Of course a mapper has to work with sketches on paper, but that is only the second step in developing a level. The first approach should be always an impres-

sion, a picture or movie which influences you, or a freaky gameplay idea. The first part should be completely in your imagination before you note down your thought. On the paper you can place your ideas and integrate them in a well designed gameplay. My sketches never go in detail - I always create a gameplay then I am painting a raw map with exact proportions. I need it to build the first basic model of the map in the editor. Within these rough blocks I slowly increase the number of details, lightning, textures, sound, etc... but you have to roll back to your first thoughts again and process them in your already designed environment. This progress is exactly the right time to use your creative freedom as mentioned above.

Show your own emotions

There are two main possibilities in dealing with emotions in art. First we start to project your own feelings down in the map. This sounds more complicated than it is. It is a very subjective and personal way to design and you shouldn't be absolutely disappointed because other players don't notice that while you filled the room with furniture and wallpaper your favourite Britney Spears CD has broken. Okay, I think now you know what I mean and now back to the topic. You have to find a way how you can impress your feelings in the current part of the level.

The easiest way is to work with colors. Just imagine that you are a small child. In your right hand you have a lot of pencils and in the other hand you have a coloring book version of your map, which is only printed with sharp black lines. Now it should be your job to shade the picture with the colors which are most suitable to show the full facet of your current feelings. Remember to use contrasts and different colors as well, otherwise the player might think you felt damn bored when you built the level. After this small return to your childhood you can open your eyes again and choose the textures which best match your vision. Hey, closing the eyes and thinking back shouldn't be a stupid or cheap drug experience - sometimes it

really helps if you think something is wrong with how the level feels or you are missing something specific but you don't know what.

But of course colors are not everything, and one of my personal favourite methods is lightning. With interesting shadow play you can not only energize a boring looking scene without wasting a lot of polygons but you can simulate your feelings as well. Whether your emotions are confused, depressed, or out of control, it doesn't matter, you can always project them in your levels with a little bit of fantasy. If you are choosing the lighting it shouldn't be important if you are in a bad or good mood, because normally you already represent that with the choice of colors. But it is still important that lighting and textures fit together.

I am not sure if architecture or gameplay can be a mirror of your current mood, but if it is possible at all it would only happen in the subconscious. On the other hand this might explain why my levels are always big and complex ;-). Ditto for details and sound in my opinion. They have less to do with your current feelings, because they are something which you normally place deliberately. But they play an important role if you want to create emotional feelings for the player.

I already did some minor or funny experiments - while building *ns_junglecomplex* I only heard hardcore music. Of course now I can not say if I would have built the level in another way or style with e.g. church music. Personally I can only say that the whole level is more rough than previous levels, which were built with blues or jazz. Yes, music can influence your emotions and thus your level to a certain degree.



Creating emotions for the player

The second method used to deal with emotions in art is to influence the player directly with intentional sentiment. An easy word for this process would be „atmosphere“. This might sound a little bit provoking, because atmosphere should be an essential point for every mapper. I learned that „standard“ level designer talk about atmosphere consists of 90% about „gloomy atmosphere“ and the remaining 10% about „happy“, but that is normally only an excuse for boring shadows.

I already talked about colors in the section above, but there your own emotions should show you the right ones. Now we start to talk how to influence players with colors. This is very easy and doesn't need a long explanation. I guess everyone learned in school something about this e.g. red = hot/love, blue = cold/peace, green = relaxing/hope. Other colors transport other meanings, too, like e.g. white = sterile/clean, yellow = danger/warning. But not only the color itself can be a tool for you, don't forget e.g. temperature or quality. A whitish red has definitely another expression than a strong red, and a table with a pallid wood texture looks cheap compared with a robust one. I'll talk about this in more detail below.

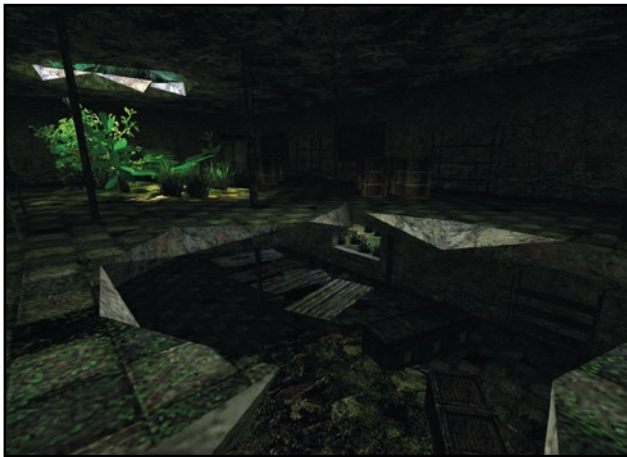
In my opinion contrasts are very important! Definitely the most common one is black vs. white. The bright parts always have something safe/friendly as opposed to the black parts which everyone always handles with a little bit of care because they are dangerous/sinister. But although everyone uses it and is proud of his „gloomy atmosphere“, we should try some other contrasts and check the whole common list:

Color-itself-contrast:

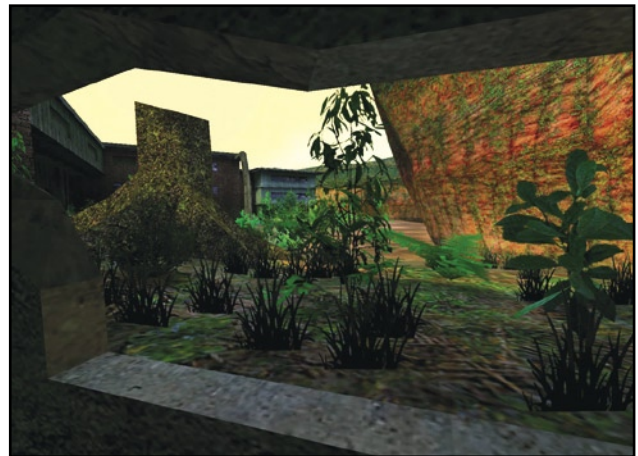
e.g. yellow vs. red, yellow vs. blue, red vs. blue. Working with the three basic colors is the easiest contrast and the most powerful method to make objects distinguishable from each other (except with shaders of course). Personally I use it rarely, never with intent and I have no real good picture of it.

Bright-dark-contrast:

This is an optical primary contrast. The easiest way to work with this contrast is with light. Between white and black is the whole optical world, all colors and the complete greyscale. It is one of the main methods to create a 3D effect. I guess every mapper knows that his level looks extremely strange/boring if he forgot to compile the light. Sometimes you can increase this effect to highlight something or you can enliven a scene without wasting a lot of polygons.



complementary. e.g. yellow vs. violet, blue vs. orange, red vs. green. The simultaneous contrast is an optical complementary contrast. If you look at something which is intensely blue and then you close your eyes, you see the opposing color, orange. I really like this uncommon contrast because in my opinion it enlivens and freshens the scene even more than some other contrasts.



Cold-warm-contrast:

This is very subjective and relative, e.g. a reddish orange vs. a greenish blue. I guess a player would have a strange feeling in an orange meat locker or inside a blue furnace. Another easy contrast.



Quantity contrast:

This has less to do with the colors itself but with the balances among them. If a specific color dominates a scene then every other single color is in contrast with it. e.g. a red ski suit inside a big white avalanche. This is of course another good method to highlight something.



Simultaneous contrast:

If u mix two colors and the result is grey they are

Quality contrast:

You can get very different results if you mix a color with grey. The color loses its intensity/quality

and is now in contrast to its original one. Perhaps it might be an interesting contrast but personally I never really used it with intent.

These are the main contrasts of colors which you can create with textures or lighting. But colors are the only things in a level which create atmosphere or influence the player. Let's talk about the contrast of form. The appearance of a level is normally very blocky because of the grid of your level editor. Creating curves is one way to avoid that problem, and another one is to use mapobjects (imported models from another 3d model editor e.g. 3D-MAX or Milkshape). Both of them delight/soothe the eyes of the players and can make your level very stylish.

On the other hand, sometimes a mapper simply doesn't want an elegant feeling, he wants it rough and hard (no I don't mean his sexual likings!). For example you can make a wonderful mansion with a lot of nice looking details, everything smooth and full of curves but as soon as you go down in the cellar, everything becomes coarse. The player would feel the difference at once even if you work without light contrast. Another possibility of highlighting something special is to place a coarse object inside a very curved background. Now you know some different possibilities to enliven your level and to increase the richness of emotions. I can talk for hours about different contrasts e.g. sound, movement, details, etc. but contrast is not everything. Before you try something new you should definitely test some more variations. A single contrast may not be strong enough or has an effect on every player. For example, you have a jungle, night setting with two cottages and you want to place some lights. As soon as you place a single white light you have a bright-dark, quantity contrast in addition to the form contrast of the cottages and the organic plants around them.

Now imagine if you would have a change in the light to a little bit of red/orange (yes, I said: „a little bit“ !! we don't want to create a stupid looking Disney/Chuck-Norris scene) and automatically you have a simultaneous (red - light vs. green - plants) and cold-warm (red - lights vs. dark/blue - sky) contrast. In the eye of the viewer the cot-

tages become now even more friendly, interesting and the surrounding area even more threatening, dangerous.

I don't want to force you to use contrasts everywhere. Sometimes no or less contrast can create an even better feeling. Especially in realistic outdoor settings you should be more skimpier with your contrasts. Please don't start to write down a list of contrasts which you would like to use, while you plan your map! The idea to work with ANY kind of art element should come more or less spontaneously. Simply follow your design sketch and then you should feel that something is missing. You simply have to develop the right feeling/vision.

Architecture and composition



We talked long enough about contrasts and emotions in our levels, now it is time for some other aspects of art. Now I want to take a look at architecture and composition. Architecture has always been esteemed as art as long as it isn't simply a copy! I am tired of telling other people that they should please use their brain and try to create their own architecture instead of making copies of existing buildings. You should see it as a challenge to be your own architect. Of course it is obvious that in a normal boring part of a city you can't start to place extravagant or modern buildings.

On the other hand the mansion of a druglord should not look like a drab building which you would normally use in a harbour setting. In my opinion if you have the chance to be creative you should really take advantage of it!

I don't know why, but most mansions I see in computer games are in a neo-antique style. Especially some original european styles are very interesting as is modern art architecture. All of them could have amazing gameplay elements and would be something fresh for the player's eye.

The architecture of your houses should always fit in the current environment. A blocky style definitely doesn't fit into an old district or old city. The blocky style only fits in industrial or harbour settings or if this part of the town is relatively new. Such a blocky town planning always reminds me about America and is normally totally different compared with what you find in older european cities. Town planning only plays a minor role in the history of art but you can find it in baroque parks. In my opinion gameplay and performance should be more important than a well designed part of a town. Okay, I know that normally every editor uses a 90° degree grid and it is not very easy to work against it.



Composition might play an important role for paintings but it is very hard to use it in level design. If you want to work with it you simply need some basic knowledge about theoretical art. As a small memory aid I copied what I found in my favourite/life saving internet dictionary for you (<http://dict.tu-chemnitz.de/>):

composition

n 1: a mixture of ingredients

2: the way in which someone or something is composed [syn: constitution, makeup]

3: the spatial property resulting from the arrangement of parts in relation to each other and to the whole; „harmonious composition is essential in a serious work of art“ [syn: composing]

4: a musical work that has been created; „the composition is written in four movements“ [syn: musical composition, opus, piece, piece of music]

5: musical creation [syn: composing]

6: the act of creating written works; „writing was a form of therapy for him“; „it was a matter of disputed authorship“ [syn: writing, authorship, penning]

7: art and technique of printing with movable type [syn: typography]

8: an essay (especially one written as an assignment); „he got an A on his composition“ [syn: paper, report, theme]

9: something that is created by arranging several things to form a unified whole; „he envied the composition of their faculty“

For level design we should take a look at point number three: „harmonious composition is essential in a serious work of art“. Yes, composition is used to create harmony. Such a harmony is often desired to create a specific feeling. If you have a scene which is strongly dominated by horizontal and vertical lines it would totally destroy the strict, still, organized harmony if you add something organic/angular/aquiline.

On the other hand you can strongly influence a chaos/natural arrangement if you place something very blocky within it. It might destroy the harmony but on the other hand it is of course an eye-catcher. Players normally need things which stick out for orientation and navigation. You should simply give it a try. Normally I automatically include composition if I plan a town or develop special architecture. For me it is simply another element for adding harmony or disharmony.

Imported art

Okay, we have been working the whole time on how to improve your level but why not make it even more simple? Why not simply import art in your level e.g. as a texture or model? Do you really need a lot of skill/thinking to include a model or texture into a level? No, even Garfield the cat can implement this. Of course I am doing this too, but definatly not to improve the art level in my map! In one of my last NS:CO level (*ns_beachhouse*) I included pictures which were simply holiday images from fans. I asked them to send me some pictures.

Imported art can be used to invigorate your level but it has defintaly nothing to do with the topic of my current article. We want to improve the quality of level design, not to present your modelling/2D skills or the abilities of other artists. That doesn't mean that artistic models or textures couldn't really help your level! I was just talking about single models and textures which have less to do with the surrounding artistic/atmospheric environment.

Mistakes which you could do

Art within level design for me is only another interesting aspect. It might be wrong to give art a very important role in your map. Gameplay, performance and quality is definatly still more important than anything else. In my opinion it would be wrong to say this level is bad because e.g. he follows no aspects of art or the designer chose the wrong contrasts. On the other hand it might be incorrect to compare the art you know from museums or school with the art I am talking about here. It is nonsense to say something like: „Hey, Ben ns_junglecomplex has the similar feelings like many pictures from Vincent van Gogh, which I saw in Paris.“ Personaly I have no problem with such compliments but they could be a little bit too freaky...

Yes, it is true that art can be extremely boring for most young people - I am young, too - but it is wrong to forget everything we know about art, especialy if you are doing a creative process like level design!

Keep everything simple, otherwise even the more experienced people would never notice some details. It shouldn't be very common in your level. A museum with a hundreds of old pictures in every small room will definatly flash you the first time - the time of flash is different from person to person - but then your eyes/you get sick of it. The same would happen in your level if you have too many different things drawing your attention or you are using the same technique all the time. Try to be diversified and innovative where possible.

Final words

What a surprise! I was making a small break while I was writing this article and was watching TV. I switched between the channels and there was a intresting documentation about history of computer games and its different influences. There an american professor compared the way the designer of Myth - an old render advantage - worked with textures and light with the work of Rembrandt - a famous dutch painter of the 17th century. This professor was not the only one who saw parallels between game design and art itself. The reason why I am telling you this is that I have mostly the same point of view and was reinforced by the documentation. Otherwise I am happy that they didn't talk about level design because then I would have to rewrite most parts of the article again ;-).

No, I am not one of these freaky art geeks! I just wrote down what I remember from school and what I am still using during the creation of levels. I hate to tell it but it is true that some of the theoretical stuff you learn in school might be helpful in your future.

Perhaps you wonder why I wrote this article. Of course I want to bring more new/exacting/fresh

elements to level design, and if you are not a level designer perhaps you start to see maps with a new point of view. Perhaps you have some more respect for the people behind your favourite levels and start to think why. But for me creating a level is a very personal process and I wish that even more people felt like that. Every normal level was built out of nothing. The level designer is the only one who brings life into the map and he is the one who gives it a soul. The level is a reflection of the thinking of its creator. He is the person who determines how everything will look. If you would take a look at the map of a designer who is color blind I guess you'll see some very funny texture combinations. Perhaps that example is too simple but that is his view. I guess you know what I mean.

You have read to the end and you might have learned a lot of general and theoretical knowledge/nonsense. Now it is your turn to think and try to develop your own ideas and styles. The most important thing should be that you start to use your brain. You can be proud of yourself if you create a wonderful looking level but craft skills alone are nothing if there is nothing intellectual behind it.

Perhaps you don't share this opinion with me, no problem, contentious discussions enliven the community.

Thank you for reading

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