SKETCHUP
CAN HELP YOU WIN
INTERIOR DESIGNING
PROJECTS

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So, you are looking to win an interior decoration tender? Perhaps your boss wants design ideas from various team members? Bottom line, do you need to make an outstanding pitch with such an interior design that will turn the head of your client or superior, but undecided about the best tool to use for it? Don't worry, SketchUp is your best bet in this case.

Creativity and deadline collide with each other when you need to make a project pitch. Your focus needs to be on getting your ideas out of your head and transferring them to the screen as soon as possible – which will go on to winning the project for you or your team. SketchUp, it turns out, is very handy in these kinds of situations.
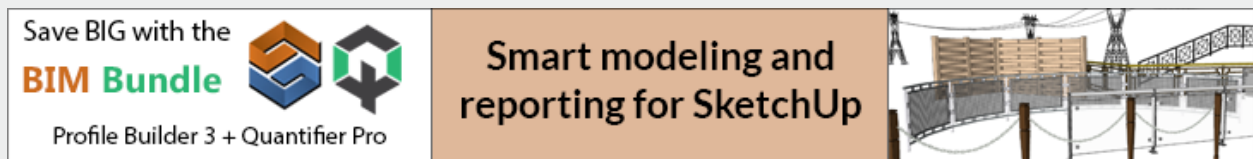
To be frank, you need the Sketchup Pro subscription to properly utilize the software in this scenario. With exciting and powerful plugins that can up your workflow through the roof, and LayOut's capability in showing off the technicalities of your work, you have the best weapon in hand with SketchUp Pro when it comes to making killer design presentations.

Let's discuss the steps of creating a great interior design with SketchUp.

1. Start with 2D

In most of the projects, there will be some photos or base architectural plans for the space in which you are supposed to work your magic. At least there will be a description. Get started with these by importing them into SketchUp.

If you already have a digital floor plan, great! Just import it in SketchUp. If you have just a hand-drawn plan, put it up in SketchUp and trace the lines – this will create your basic floor plan. If you just have location photos, no worries – the Match Photo feature will help you out in making the base floor plan.
Either way, you'll need a little time scaling and drawing to match the SketchUp floor plan with the real-life space.

2. Convert the 2D into 3D

Once you got the basic floor plan fixed, you can happily proceed to quickly turn those 2D lines into 3D walls. There are many great videos on how to draw exterior walls easily and quickly – for example, check out this video from the official SketchUp channel.

3. Put some life in your rooms

The SketchUp 3D Warehouse is bursting with countless furniture objects. Many of them are digital representations of actual products available in the market. Pick some light and easy ones to begin with, and decorate your rooms as you please. Also, use Materials and Colors to bring

the walls and objects to life. Add some greenery and sculptures, place appliances and fixtures, hang picture frames on the wall and lights from the ceiling – warning, this can get addictive. Keep an eye on the clock!

You can create multiple versions of your design too. SketchUp Lets you work through multiple configurations, and you can choose which one you like the most. Rather, which one *they* would probably like the most.

4. Build the show

The most important part of a design pitch is, of course, the show. SketchUp has multiple tools to help with that – scenes, sections, layers, styles... and each are important in showing off the aspects of your design. Don't forget to create a walkthrough as well, which will let your client feel out the actual environment from the human point of view.

5. Teamwork in the clouds is key

Trimble Connect, which is included in the Sketchup Pro subscription, is the place to keep your model in, if you have multiple team members working on the same project or have to display the project anywhere. Connect has unlimited cloud storage and you can access it from anywhere using the Trimble's design or viewer apps. If you are showing the model to another designer, you can use this to invite them to get into the nits and bits of your model.

Trimble Connect also keeps track of every version of the model you have uploaded there. Take advantage of this feature to upload and showcase multiple versions of your design.
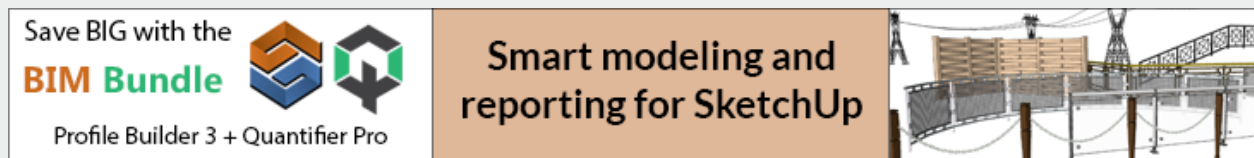
SKETCHUP TUTORIAL: DIFFERENT STEPS BASIC LEVEL

GUEST ARTICLE

Like the use of certain Plugins for Sketchup, help to complete and better define the images

- **Vray**
- **Skatter**
- **Laubwerk**

(In this example, I used a SKP-3D model of a House, - a long time ago--collaborating with the Architecture Studio, **AAVO architects.**

Use: Skp + (Vray + Laubwerk + Skatter) + Image Editor.

1— "Interior and Exterior Scenes"

Once happy, with the Modeling,

Step to define certain "Scenes", - (interiors and exteriors) ---and then to complete each situation,then to perform certain first studio renderings (with Vray).

(adding certain Trees with Skatter, Land, Furniture,...etc).
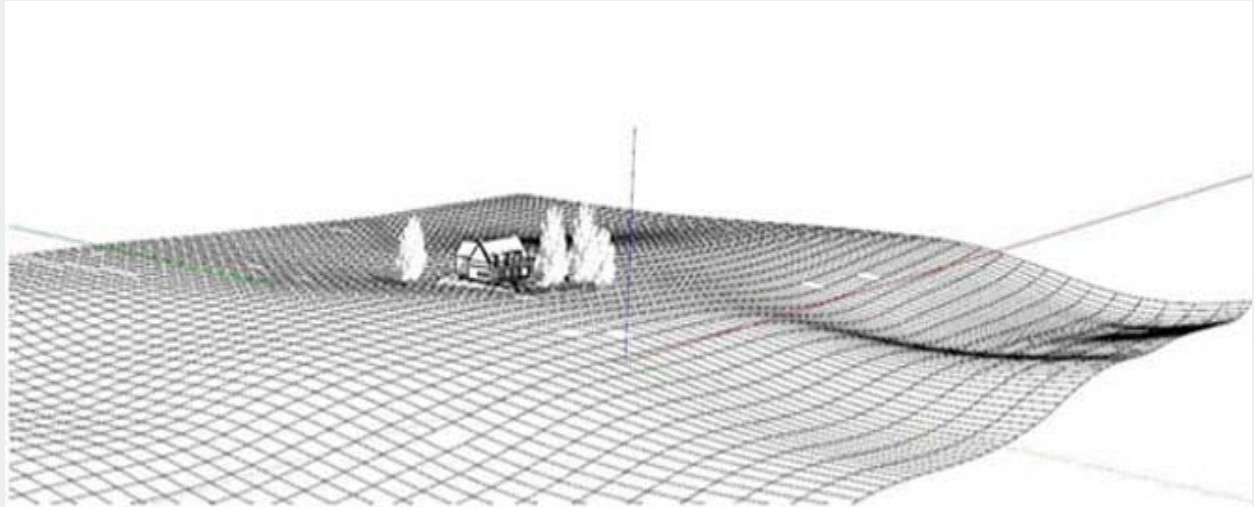
2 - "The importance of layers"

* Be able to group the appropriate elements in each Layer,- in Skp-It helps a lot in the realization of Renders and final images
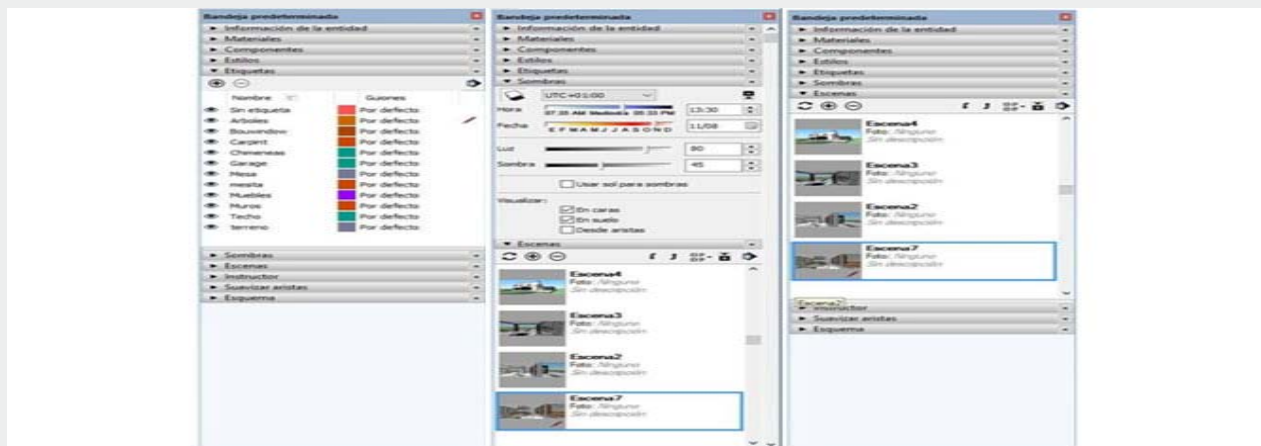
Also like this you can render ---- "with and without" said elements ---, which It will serve a lot to observe particular details and the general advance. of the Lights and Materials of the scene, in certain objects.

--- Just select what you want to group in a Layer, and create it for that purpose.

3— "Plugins"

In these examples just use some Plugins, - (quickly) -

Basic but very necessary, such as:... 'Vray', 'Skatter' & 'Laubwerk', these last two highly recommended for Vegetation, and other details. (Paid plugins but... Highly recommended!).

Excellent Vray for lights, textures and materials.

Some items created only from Skatter. And some items created fromLaubwerk.
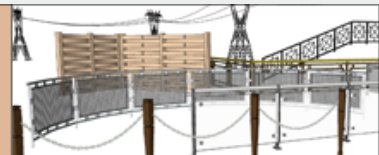
4 --- "In Post-Production":

Properly group the image elements into Groups, to be able to study each appropriate Layer in

more or less detail).

Use the 'Renders Elements' from Vray, and with them, You can select and modify a Color, Material or Lighting,that you want to change in a certain element, without the need to Render everything again, ... buying time!.

Renders ID and others:

5— "Details"

Most of the 'Details or' Decorative-elements ',should be added later in Post-Production, without weighing the SKP file, or complicating its previous rendering.
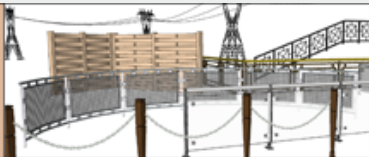
6- "Atmospheres and Different Times of the Day"

"Vray" is perfect for many things, for example to illuminate each scene with different hours of the day and 'different Atmospheres'.

Just a few different 'Steps' when creating images from Sketchup:

1. Modeling
2. Scenes (define)
3. Layers (Group by categories imp.)

   - Ground
   - Arq
   - Green
   - Furniture
   - Special items
   - Artifacts
   - Lighting
   - Etc

4. Landscape Elements
5. Vray and Renders Elements
6. Proof Renders

   - Lights
   - Atmospheres

7. Post Production 1

8. Add Final Details
9. Post Production 2* 10-Final Dimensions

Don't forget to keep drawing by hand, it will always be useful too! ...

And even mix things up.

That's it for here;
Greetings
Claudio Feldman
www.architecturalartist.be

CUSTOM SKETCHUP WORKFLOW FOR CONVERTING A 2D WAREHOUSE DESIGN TO 3D MODEL

ARTICLE

In today's storekeeping operations, the need to visualize the workspace realistically is being felt more and more. Whether you are a logistics planner wanting to know the warehouse, or a builder or supplier wanting to show off their plans as real as possible, basic 2D CAD drawings (even worse, paper plans) don't cut it anymore.

Wouldn't it be nice to take that existing flat floorplan and whip up a shiny 3D model, depicting the space, presenting the relationships between the objects in the warehouse and the are? Well, if you think that way, you have come to the right place. This article presents a workflow to convert 2D from 3D in SketchUp. What's so special about it? Well, it is customized for Warehouses specifically! And in relation, for any large general storage spaces.

So, without further ado, let's learn it.

1. Step 1: Raw materials

This is kind of obvious, but yes, you do need a 2D plan to begin with. Best if you have the 2D CAD files for the warehouse – you can import them directly into SketchUp. If not, you can scan paper drawings, blueprints etc. and take them into SketchUp.

Worst case scenario – you have only photos of the site. Well, even then SketchUp can work. There is a "Match Photo" feature in SketchUp that can input photographs of real space and you can construct a drawing around them. You will need complete picture sets, of course, covering all angles.

2. Step 2: Add height to area

Now that you have a working floor plan, you can start constructing 3D objects on top of the plan. Use the "Push/Pull" tool to erect columns and walls. Make sure you have their heights noted.

It is a good idea to make the stuff you are erecting are Grouped made objects, so that you can manipulate them as a whole when necessary. Oh and, do paint them with pretty colors and materials!

3. Step 3: Find pre-built stuff

Don't labor under the misconception that you will have to design and place every single object that a warehouse need. Fact is, the community has already created most of the models of machines and racks and fixtures you need – often built around real-world products – and uploaded them to the cloud. Ironically, this cloud source is also called the "3D Warehouse"! Just get some of those forklifts and lamps and shelves and tables from there and place them in your model. Use the

array feature of the move/copy tool wisely to create rows of shelves effortlessly.

4. Step 4: One model, many fashion

You probably have realized this already at this point, but let us mention it explicitly anyway. The use of freely available objects on the clouds, and the module-oriented nature of this model, enables you to build the base warehouse space, and reuse it in multiple different configurations. This is one of the reasons why we told you to make every 3D thing into objects (and save them) - so that you can recycle them in other drawings.

5. Step 5: Show Measurements

Use the dimension tools to provide measurements whenever necessary, so that the client – or team – understands the scale of things that matter. You should put the dimensions in another layer to hide or show when necessary. Use the proper units required in the project.

6. Step 6: Showcase your model

That's it, you have finished converting a bland old 2D warehouse plan into lifelike 3D! But, you have to show it to your client or boss or team, right? A bit of showmanship factors into this matter. Use the Scene tools in SketchUp to create custom useful (or dramatic) points of views, and create animations out of them to go with your presentation. Done properly, this will help the viewer go through a virtual journey through the warehouse.

Furthermore, you can use LayOut to combine the drawings and details into great documents for those who are interested in the nuts and bolts of the project.

7. Step 7: Render is the bender

This step is optional, but highly recommended. To squeeze that exquisite "wow" out of the client, render some of the special scenes your 3D warehouse model using a professional graphics rendering engine. They will output photorealistic, life-like to the last crease on a cloth, pictures that you can paste of your bids and proposals.

What's more, there are some renderers, like Lumion LiveSync, which can render a model in real-time, letting you show off the warehouse come to life as you use the camera controls to move around the model. Of course, you need capable hardware for that.

NHS WESTERN ISLES HOSPITAL ENERGY USAGE UPGRADE WITH SKETCHUP

The NHS Western Isles Trust has always been very conscious about the energy footprint of its facilities. Recently, they became very conscious about the amount of energy their largest facility,
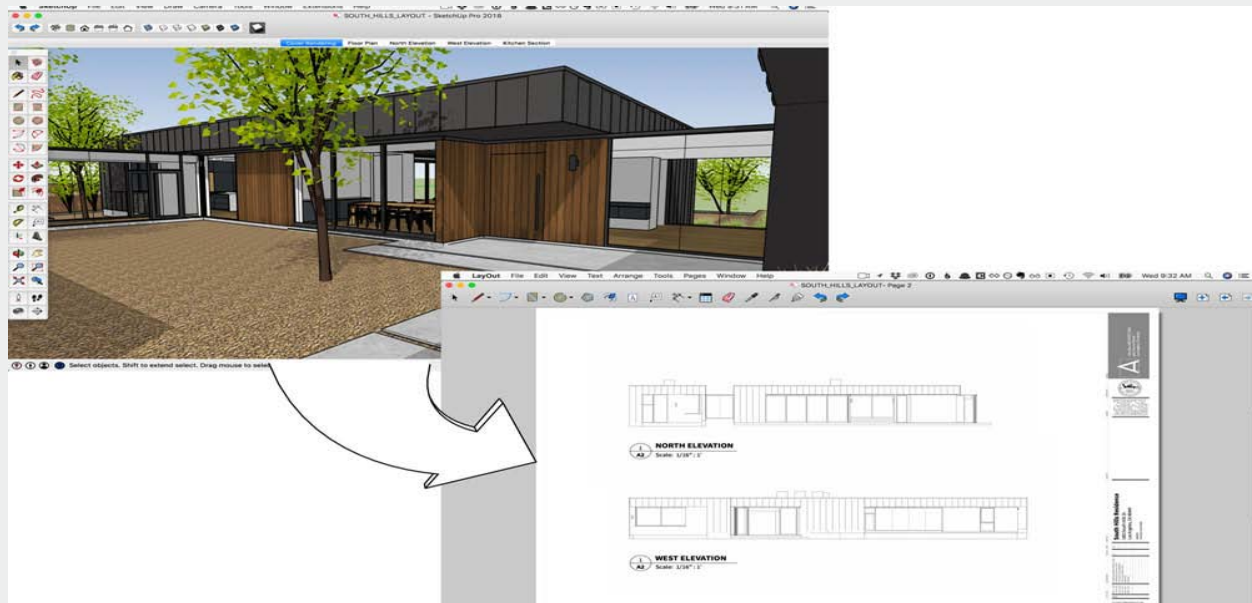
the NHS Wester Isles Hospital, their flagship. This is the reason they invited GreenspaceLive to perform an energy analysis on the building and offer alternatives.

Why was this analysis needed?

As healthcare facilities go, hospitals are quite hungry in terms of energy consumption. First of all, they need temperature control and lights 24 hours a day, every day, without break. Add the extra machinery and ventilation, sterilization, kitchen, laundry and whatnot to that amount and it gets quite massive.

The location where this hospital is located adds to the bill as it is quite cold and wet, and that is absolutely not what you need inside a hospital. The heating and dehumidifying of each room need to be backed up with efficient insulation and passive systems. Anything that can make the energy consumption lower, without affecting the healthcare, is welcome.

Why GreenspaceLive?

Based out of Isle of Lewis in Scotland, GreenspaceLive is a spin-off of the renowned low-carbon footprint environment friendly construction and renewable energy research company, Greenspace Research. Born in 2008 in the Lewis Castle College, the firm uses SketchUp to draw up building plans and uses many great plugins developed by themselves to analyze and suggest changes to the energy usage and other environment-related issues of buildings.

Primary Methodology

The basic idea behind the energy analysis and change suggestion was first capturing the building plan in SketchUp as a model, and then using the proprietary extensions to perform energy analysis on that model.

The tools GreenspaceLive used were gTools suite running on SketchUp Pro to build up the model, gModeller to make the energy analysis, and gEnergy for the energy performance rating. Once done, the model with the energy data was uploaded to Google Earth to present to the client. They used gDashboard for the presentation as well, to clearly represent the data. The team in charge of the project used gWorkspace to collaborate.

How was it done?

First, as mentioned above, the building model was to be built. For this, they used existing old CAD files and scanned paper blueprints and other drawings. These were then imported to Sketchup Pro to create the basic model. Some extra work had to be done to erect 3D rooms over 2D plans, and to match floor heights to the real building. Since the gModeller plugin doesn't need much details in

the building model, they kept the model simple with single faces for thick elements like walls, roofs etc.

The gModeller tool adds custom materials in the Materials Palette in SketchUp, which the project team used on the surfaces to define energy-related data. The manual space tool was used to define spaces or zones with specific energy-related data (like how much heating or light a space needed).
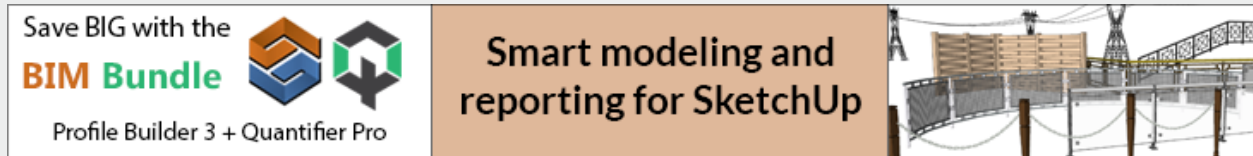
This was the complete building model ready to be analyzed. The good thing about a gModeller-made model is that its gbXML engine lets the model be compatible with many energy analysis engines like Green Building Studio, Ecotect, Trace etc. The team used gEnergy, however, which used the existing heating and energy information to figure out what's the situation as of the moment.

Next came the phase where they needed to figure out how to improve the existing system. For this, they ran the tools again, but this time with fabric, insulation and other technological data as predicted by their in-house experts, instead of the hospital's present systems. They ran the analysis again and again, with different proposals of energy-saving refurbishments. Multiple studies were created.

When these works were done, the information was shared to the client using Google Earth, gDashboard, and gWorkspace.

What was the outcome?

Using the information they gathered from the above, NHS Trust was able to realize something dramatic. They were now armed with the assurance that using some of the projected techniques, the overall energy consumption can be reduced as much as 50%. Not only that, it would also lower the GHG emissions down to 80% too!

According to David Tierney of the Energy Team of the NHS Western Isles Hospital, these analytics were prevalent in composing the changes they much needed. "…Executives and staff received an overview of our carbon emissions, energy consumption and the impact changes in technology and fabric will have on our building. …The results will help shape our plans for tackling carbon emissions and energy consumption in the future," Tierney said.
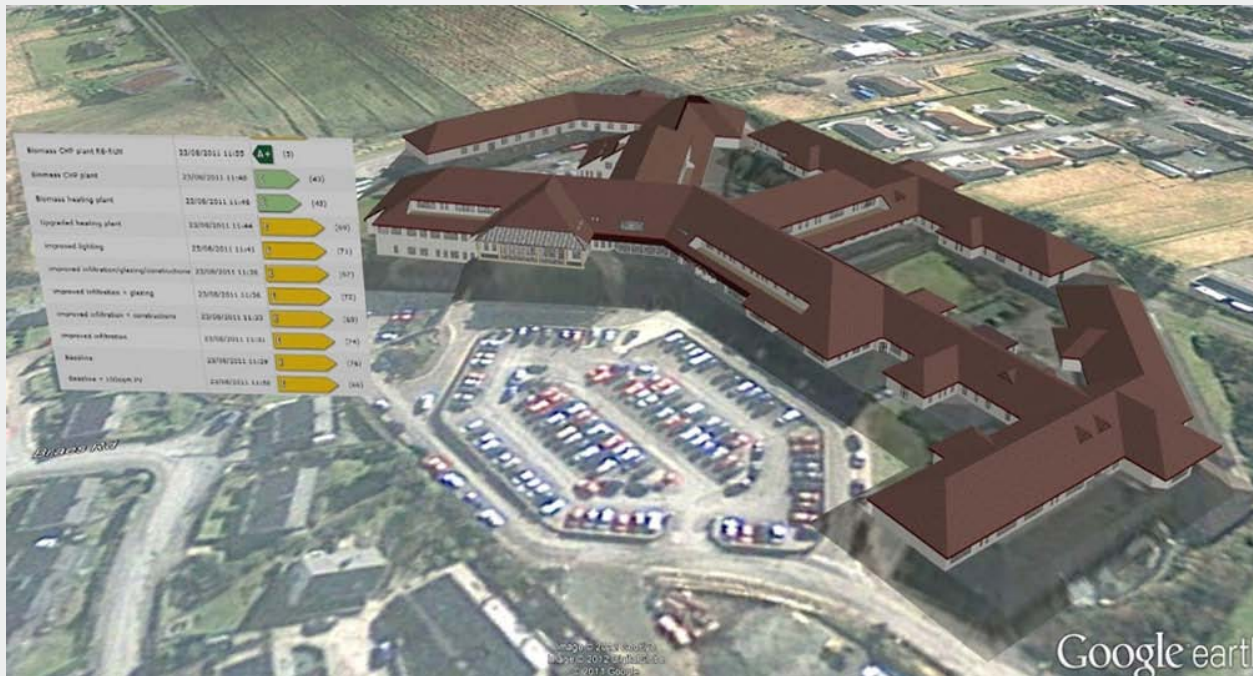
4 SALIENT FEATURES OF LUMION 8

It has been a while since the name of Lumion has carved out its majority space in every 3D designer's mind. Many people use it personally and many companies use it professionally for their 3D rendering purposes. Today we have the most modern version of Lumion – the 10th, but the craze for this wonderful application started back in the years with Lumion 8. Today, let us look back and see what were the best features of Lumion 8 that made it so popular among 3D modelers and designers.

Styles

The first thing that blew the minds of Lumion users back then, was the introduction of the Styles feature in the rendering app. Styles are basically what you apply today as filters on smartphone photos – changing the color and tones of the photo in one tap. The styles feature worked similarly – you just choose a style from a list and the scene you are rendering gets a whole different look.

There were a bunch of predefined styles. But of course, you still had complete control over each and every aspect of the colors and tones and lighting, after applying a style (or not applying one at all, just going au naturelle). However, most people used to just choose a style and stick with it.

because they were such great effects to begin with, you wouldn't want to change much of the settings – maybe just change the shadows a bit or apply a bit of vignette, minor stuff like that.

Sky Light

In addition to Styles, there was another new feature in Lumion 8 called "Sky Light". This is actually a brilliant algorithm to create photoreal lighting effects, especially in those scenes with sunlight. It creates a space effect with lights, making our eyes believe what we are looking at is lit up naturally. The shadows cast in this system were very natural too – plus, they were worked on later by the following feature.

Shadow improvements

At first glance, it wouldn't look so important, but this was the toughest feature to make for the Lumion developers. The addition of soft and fine shadows in a scene was something close to a groundbreaking step in the evolution of 3D rendering software.

Most people don't notice it, but the quality of shadows is the top thing that brings life and realism in a scene. It is one of the most impactful visual features of any 3D rendering. The fine shadows and soft shadows, possible now due to major improvements in graphics hardware, are bringing lifelike reality in digital renderings.

Lumion 8 didn't only just provide the improved hardware shadow feature, they also let you take complete control over it. If you weren't happy with the built-in presets, you would be able to finely tune every settings of these soft shadows, making them look just as you wanted – real or ethereal.

Hyperlight

Another exciting lighting improvement in Lumion 8 was the Hyperlight mechanism. It adds extra realism in the lighting and shadowing effects in scenes – especially moving, changing scenes – to immerse the viewer in simulated reality. However, this was the most difficult to do for the graphics card, so you wouldn't be able to see this feature at work inside the software itself. To get it to work, you had to export a video scene, and there check this box.

Lumion 8 was possibly one of the most popular 3D rendering solution available at its release time, and quite justifiably so. Specializing in lighting and shadow effects to create more photorealistic renderings than ever was possible because of being the first to take advantage of the capabilities of the new graphics cards. Users of Lumion 8 were able to start a whole new generation of renderings to put on their presentations, pleasing their clients more than ever.

Lumion remains one of the best architectural rendering software available in the market till this day. Many fine features have come into the software since its eighth edition, and they sure do

make other software jealous. With a free Student license for schools, Lumion is able to reach more people than ever.

USING DRONES TO CREATE BEAUTIFUL 3D CONTEXT MODELS IN SKETCHUP

3D Visualization software like Lumion and gathering data from OpenStreetMap or similar terrain mapping is all good for a basic 3D context model, but it is nowhere near good enough for displaying your model in real location in all its glory. That's where drones may come in handy.

Most 3D terrain data from OS or similar sources come in flat colorless detail-less blocks only, and satellite imagery are way too low-res to have any effect. At least, those that you can access publicly. These options are great for quickly mapping out the urban or rural environments around your model, but drastically limits options and capabilities when preparing client presentation renders.

This is where drones may be very useful. You can get into really speedy context-building without having to sacrifice photorealism. The idea is based upon taking lots of photos of the area with a drone with a high-res camera, and then using those photos to match and render the 3D context in SketchUp.

Incidentally, drones are already used in construction in a similar manner. They fly them around the site, especially in case of large or tall projects, to see the progress and to inspect difficult-to-reach spots. Now we can, and should, use a similar idea in SketchUp 3D context modeling.

Of course, to use this tactic in architecture design and visualization, you need some help. A testing team of Lumion used a modern drone and a drone-to-3D capture software and designed a workflow that would be easy for most architects. Not only that, it will be time-saving too – all the capture and fitting work for a standard-sized project (let's say, 300 by 300 meters) can be finished in a day.

The team used the drone device named DJI Mavic Air. It is less than a kilogram in weight and can speedily fly for 20 minutes (or, 10 kilometers) on full charge. While doing that, it can stream 4k videos and 12k photos! It cost them only $800, so, seeing the return, it is cost-efficient as well. Combined with a standard 10-inch tablet (with enough storage), this drone can be a great modern surveyor.

But taking random pictures darting around the site is not only clueless, it is also inefficient. You need to plan carefully about where the drone should pause, look in what direction, and take the picture. Pre-planning that much, and flying the drone with that kind of precision isn't normal for us standard architects, yeah? Yes, the testing team thought that after just one try, and they opted for Drone Harmony.

What is Drone Harmony? It is an app used in the tablet mentioned above, and what it does it is fantastic. You can define the area of interest on the local map, and the app automatically calculates the flight path of the drone. Not only that, while it flies the drone on the precise path, it continuously captures images of the area. Each picture will have a 60% overlap with the previous, so you are guaranteed to get full coverage. Also, you are going to need that overlap to build the full 3D map.

But what about the angle? It's simple, just repeat the run with the camera tilted at different directions till you have pictures of every solid object in that area from every conceivable direction. That means five runs with 5 different angles. Each of these runs for a 300x300m area would take around ten minutes. Adding charging time that can be finished in under half a day.

Now that you got all the visual information about your area, you need to align and join the images to build one giant picture – and create a 3D model out of it, and add textures. You can, of course, do this by hand, with hour after hour of back-breaking work – but why bother when you have Reality Capture? This handy tool takes all your area photos, joins them up to make a full photo of the area, makes a detailed 3D model out of it painted with textures to boot!

Granted, after importing the pictures and getting it configures for the project, the Reality Capture software would take a few hours on a moderately decent machine – but the result is oh so worth it!

Now all you have to do next day, is to import the model into SketchUp, prune and weed out unimportant details no one will see (to make the model lighter and simpler), and send it to a renderer like Lumion. For those with more time, go ahead and decorate the place with trees, people and cars – hell, put the Batmobile in the middle of it for all we care – and then get it rendered.

There you go, all done! For video presentations, you can add scenes in the SketchUp model and get it animated as well. Live Sync will come in very handy for that!

MARK BUTTON DESIGN – A SKETCHUP STORY

From Star Wars to Assassin's Creed, from Lego to BBC, big names frequently asking for freelance concept developers are well aware of Mark Button. He has always been obsessed with drawing and film, and now he channels this considerable firepower through SketchUp to deliver beautiful projects in record turnaround time.

Mark has been a concept artist in both television and big screen for nearly a decade now, working as a freelancer. His work is often highly collaborative so that the client can share exactly what their vision is to him. His projects can range anywhere between a month to a year. And does it all with – SketchUp.

Why SketchUp

Funny enough, Mark did not choose SketchUp – it came to him. When starting way back at 2011, He was asked whether he could use SketchUp to make the drawings and he answered 'yes' without much thinking. Fortunately, the simplicity and ease of use of SketchUp proved to be a much-needed boon for him. And once he started, he never looked back!

Mark thinks the best thing about SketchUp is its accessibility, being also the reason why it was chosen for him. By his experience, clients who use SketchUp rather than other programs are much faster in review time and give better notes. Throwing the model back and forth is common in this industry, so a 3D modeling and viewing program that is fast, easy and efficient would be the best choice. And so far, SketchUp has never deviated from that tact.

Typical workflow of Mark Button

The work of a concept artist generally begins with the story. The client tells the script or the situation to Mark and he visualizes the idea, often doodling on a pad. Then it's right to SketchUp and he starts making block sketched off the doodles. Then he would verify it with the client, and they would suggest changes or improvements. This can go on for a while, many times. Often the images presented to the client are 3D renders done with SU Podium or something similar. Mark also photoshops the model render onto other scenes or drawings to show how it would look in real life. Well, real as on screen.

Mark Button suggests

According to Mark, the following are the best practices for any designer working in SketchUp.

- Components – great way of compartmentalizing the model and reducing design time, especially when you're making a symmetrical model or one with a lot of reusable blocks.

- Keyboard shortcuts to live for – G for components, B for paint bucket, F for offset.

- SketchUp plugins to die for –

RoundCorner, JointPushPull, Curviloft, CenterPointAll, SU Podium.

An alternate universe

What would Mark Button do if he wasn't working on concept models in SketchUp all day? He does wonder often, who would he be without his passion and SketchUp. As he is obsessed with movies, occupations related to that is only what occurs to Mark as alternate profession.
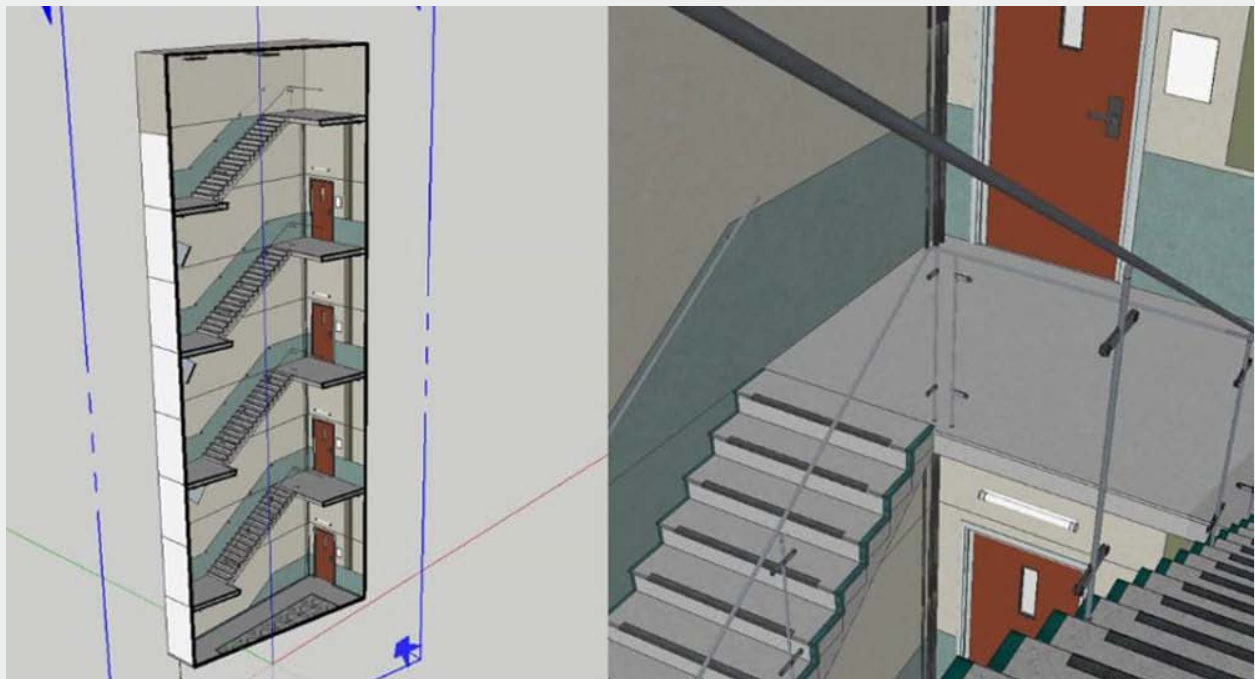
HOW TOM KANEKO USES SKETCHUP FOR CUSTOM HOME RETROFITTING

Tom Kaneko is a structural originator and SketchUp ninja having some expertise in bespoke private retrofits and expansions in the United Kingdom. In this discussion, we dig into his workflow and how he utilizes SketchUp to convey an incentive to his customers inside the imperatives of a limited financial plan. For Tom, 'SketchUp makes the methods for plan and correspondence, with customer and temporary worker, indeed the very same'.

To enlighten ourselves regarding his experience as a modeler and how this impacts his way to deal with plan, we have asked Tom a few questions, and following is the summary of his answers, from his own point of view. Enjoy!

I'm attracted to the specialized parts of the calling and the site. Fortunately, I had a very active involvement with the University of Edinburgh that has served me well by and by.

As an originator, you need to know your art... information holes become evident when you change from plan to development, especially while participating in discussions with manufacturers and subcontractors.

What was the decisive second for me with SketchUp? It came in 2011 when I was taking a shot at Jemima's House, an expansion to a terraced Victorian house with enormous desire and a strict financial plan.

To deal with the financial plan, hold my charges down and still convey an incentive to my customer, I must be productive with my time. We needed to make a fascinating and utilitarian space, utilizing economical materials in a thought about way. This implied I needed to quickly emphasize to test and examine thoughts with Jemima.

Modeling the idea in SketchUp helped monstrously during our discussions as I could rapidly impart my aim in 3D and furthermore reflect changes without any problem. For the retrofit and expansion projects that I've had practical experience in, minute subtleties like protection thickness can influence the last usable floor zone. Conveying these subtleties plainly to developers is significant so the customer gets the most worth.

In SketchUp, I make all the detail drawings we need, and for all intents and purposes develop the whole structure before we go nearby. By doing this, I'm ready to detect each error. When I saw that I could go from idea plan to development subtleties in SketchUp on this project, I quit sending out my segments or subtleties to other CAD programming. Presently I realize that what I've drawn is the thing that the manufacturers will have.

The smooth progress from idea to the site is critical for a fruitful structure. How I guarantee this and how does SketchUp uphold my workflow is what we talk about here.

I start each idea with hand drawn portrayals. I center around getting the progression of the arrangement right, while consolidating the customer's necessities and wants inside the restrictions of a normal London porch.

At the schematic plan stage, I get an overview of the current structure done, and transform that into a SketchUp model. Regarding my model structure, each floor is its own part, dividers and floors are independent, and furniture and individuals are on singular layers.

Having an efficient model makes it simple for me to make changes or eliminate components. I additionally set up the entirety of my key scenes and sheets right off the bat in SketchUp Pro and LayOut… floor plans, areas, fundamental rises and viewpoint views of the primary spaces.

One regular plan challenge I have is to accomplish an extraordinary feeling of room in the inside with a higher rooftop line, while considering the shadows cast on neighbors. Now, trying out thoughts in segment and 3D causes me show up at a one-of-a-kind, logically proper reaction. The yield from the model can be utilized for daylight examines which may be submitted as a major aspect of the arranging application records.

When the plans and segments are concurred, I make a different development model to truly bore down into the subtleties. A portion of the points in the roofline mean we have extremely bespoke intersections and I must have the option to plainly convey the development and plan aim to the manufacturers.

As the plan advances, I generally make a different model for each key stage. A basic schematic model will have a few cycles… changes can take five minutes or forty minutes relying upon how large a jump we're making.

A major success is that I can rapidly refresh the segment views utilizing Skalp for SketchUp, and LayOut consequently gets the changes. The last proposition from LayOut is the thing that I use for the arranging application.

Next, I make a definite development model that takes us on location. Rather than empty dividers, the specialized development model expresses divider and rooftop subtleties. I've discovered that demonstrating manufacturers gatherings and viewpoints in 3D causes them truly get behind the plan goal.

They have an away from of what you're attempting to accomplish and why. I would say, clear data prompts incredible connections on the structure site. Some truly experienced manufacturers on past projects have revealed to me my development drawings from LayOut are probably the best subtleties they've ever observed!

100mm Celotex GA4000 PIR insulation fit tight between rafters, leaving 50mm min airgap

45mm Celotex PL4000 PIR insulation. Joints to be sealed and taped to form vapour control layer

pine sill, painted

Nominal window sill (drip not shown)

Code 4 lead drip detail with Code 5 lead clips on 12mm WBP plywood

ventilation detail with fly screen

Code 4 lead cover flashing, held in place with Code 5 lead clips

200x50 joists, according to engineer's specifications

Rockwool acoustic slab insulation laid over plasterboard

Joists to be fixed to sole plate, to tie floor and roof structure together

DPC

Assumed existing masonry wall

100mm Celotex GA4000 PIR insulation fit tight between frame, leaving 50mm min airgap

45mm Celotex PL4000 PIR with 12mm bonded plasterboard fixed to inside of frame/joists. Joints to be sealed and taped to form vapour control layer

A / A03 Dormer Junction Detail 1:5

B / A03 Pitched Roof Eaves Detail 1:5

EXPERIENCE OF SCHOOL TEACHER WITH SKETCHUP

Trimble SketchUp is already a hit with many 3D designers, architects, engineers, and simple hobbyists. But what does it feel like to teach SketchUp, especially to kids in a classroom? Mr. James Laub, Technology Teacher at Washington Middle School in Long Beach Unified School District utilizes SketchUp and Rendering for classes. Below are his experiences, in his own point of view.

At the point when I initially began instructing SketchUp to new students in semester 1, I presented the entire apparatus set, at that point requested that they assemble a two-story house which must be 100% unique and incorporate no segments other than entryways as well as windows. They were given a month to finish this task.

Next, I began showing some Interior Design and requested that the students make at any rate two rooms commonly found in a home, total with all the subtleties one would typically hope to see

there. The thoughts the students concocted for this venture were so acceptable, they propelled me to extend it in the accompanying manner.

A year ago, I figured we would configuration rooms, yards or finishing for individuals who were keen on remodeling or experimenting with a current space. Presently, I thought, why not make a difference this to this present reality?

I took this recommendation to my kindred faculty members, and inquired as to whether any educator was going to leave on a remodel inside as well as put in new arranging outside of their home; at that point, I proposed that we could have the students go after concocting SketchUp models for their redesigns. Three educators promptly came to me saying they couldn't imagine anything better than to do this. Along these lines, I welcomed every instructor to go to my group to share their preferences with respect to hues, lighting, furniture styles, trees and greenery, and so forth.

The students were then accused of making three plans for insides and additionally outsides. They concocted some stunning things: two terraces, two front yards, a kitchen, a lounge area and a bed-shower combo.

I've incorporated a connection here where you can view an inspecting of my students' work on these three educators' undertakings. These are likewise on my Google drive, however there are beyond any reasonable amount to put here. You will see tests of the two-story houses, in addition to the room, shower and kitchen models.

The subsequent connection is to a site I worked to exhibit the yard we intended for one of the instructors where you will see five periods recorded and around 100 forms of the students' work. You will see that their plans run the range from only OK to completely fabulous.

In this undertaking, the instructor is the customer who comes to meet the student contractual workers and the students convey their models through the site – similarly as this cycle is directed in reality.

My following stage is to take this plan to Cal State Long Beach University where they offer a degree in Interior Design and propose to that office an organization wherein a portion of their students in the program go to my school (5 miles away) and show a couple of nuts and bolts of Interior Design. Only two or three one-hour meetings would go far. That is in the pipeline.

The general objective of this is to begin an association with the network and run what might be like a private company with individuals coming into our school and having our students play out their administrations simply as they accomplished for the instructors on my staff. It tends to be continuous a seemingly endless amount of time after year and as we get more individuals from outside the school. This will go far to show students how a genuine business function continuously. This is not, at this point a reading material exercise yet genuine certifiable application.

We utilized Kerkythea for some time yet as of late chose to change to IRender nXt in light of its convenience, better delivering outcomes, and heaps of ground-breaking highlights which will make it simpler for our students to make incredible renderings.

I would be intrigued to hear any remarks on the most proficient method to get the news out in the network to get imminent "customers" for our students. If it's not too much trouble add a remark beneath in the event that you have any inquiries or recommendations.

SKETCHUP HANDLES INTERIOR DECORATION BEAUTIFULLY AT 3DEA

During a temporary position at a huge showroom in Milan, Ivan Borov understood that his associates were all the while drawing in just 2D. Quick to help change the manner in which they worked and improve effectiveness, Borov acquainted the group with the universe of spatial 3D design in SketchUp.

Ivan Borov got the 3D bug at fourteen when He worked together with a companion on a project utilizing SketchUp and Google Earth. He was interested by SketchUp's availability and innovation in general.

While contemplating interior design in Milan, a short film accommodation that consolidated his affection for visual depiction, video, and photograph altering won him a grant.

He got back to Bulgaria in 2012 and worked at a furniture firm for a very long time before setting up 3DEA, a unique business interior design firm that conveys marking, and turnkey work environment interiors.

Borov began 3DEA following quite a while of post-study work involvement with Milan and Bulgaria. By that time, he had developed an organization of expert contacts while working at a furniture organization so HE had a smooth change into serving them as an interior designer. They commonly take a shot at huge and little scope organizations, assisting with communicating their ethos, image and visual character inside their interiors. They likewise make exhibition and stand design and signage. SketchUp is their "Swiss Army Knife" that prepares us to do every one of these undertakings at various scales reliably well.

SketchUp is their Swiss Army blade that prepares us to do every one of these errands at various scales reliably well. A key subject that goes through their projects is the blend of good design and buildability. They run a lean group, teaming up intimately with other design experts, especially engineering studios, as required per project. They find that this multidisciplinary group offers more prominent aptitude and gravitas for making sure about bigger offers.

3DEA was a group of five for quite a while until HE turned into a dad early this year. This significant life occasion constrained me to audit my way to deal with work and to locate a superior equalization. This implied changing from 12 – 15hr days at the workplace to being more particular about the projects They take on, and working more advantageous hours in a more adaptable manner. He accepts that you produce better work when you have a reasonable way to deal with life, work, and design.

During site examination, they hand-draw a plotting review that catches estimations that may turn out to be critical later in the design cycle. They likewise take loads of photos. Back at the studio, they translate key subtleties from the hand drawings and photographs into 2D drawings in SketchUp. When all alterations are done in 2D, they make their theoretical 3D models.

They create pictures that the customer can audit, remark on and endorse, and afterward they change to specialized 3D drawings and subtleties, zeroing in on exactness to guarantee build ability. Their models are information advanced in light of the fact that that encourages us with assessment and particular.

Indeed, even without making photorealistic renderings, SketchUp encourages us to get the customer amped up for the idea. At that point They center around intriguing the customer with the completed item.

They designed a 3 x 1.4m across the board workstation with a metal structure for an all day, every day sea reconnaissance tower which is in the Black Sea off the shore of Bulgaria. All the PCs, gear and wiring should have been completely incorporated inside the metal structure. Tackling the design issue was just a beginning stage. They expected to thoroughly consider the conveyance and establishment coordination. Beginning from a brief and one reference picture shared by the customer, they had a half year to design, create, and convey the project.

SketchUp demonstrated critical for making sense of if all the different parts being made in Sofia would fit into the haulage truck before being amassed and afterward moved to Varna and Burgas. The work area's house is like the inclining pinnacle of Pisa and a portion of the pieces didn't fit the lift. This implied They needed to reenact precisely how the work area would be situated all through the flight of stairs to in the end show up in its last area at the head of the pinnacle. This project was truly entrusting however fulfilling to convey and SketchUp was an extraordinary assistance from the earliest starting point to the furthest limit of the project. SketchUp was an extraordinary assistance from the earliest starting point to the furthest limit of the project.

Another project feature for me was designing and conveying their bespoke aluminum and oak facade lights across three stories of another shopping center in Bulgaria. They teamed up with a lighting producer called Prisma to make 300 of them with measurements running from 50cm x 50cm, to 6 x 4m.

Conveying what they guaranteed was simple since they utilized a constructible work process. By demonstrating the project in light of buildability, they realized that they could convey that they proposed, down to the electrical arrangement and the situation of machines.

SKETCHUP NOW HANDLES POINT CLOUDS MUCH BETTER

TIPS & TRICKS

A point cloud is a lot of information points in space. Point clouds are by and large created by 3D scanners or by photogrammetry programming, which measure numerous points on the outer surfaces of items around them. As the yield of 3D scanning measures, point clouds are utilized for some, reasons, including making 3D CAD models for fabricated parts, for metrology and quality review, and for a huge number of perceptions, movement, delivering and mass customization applications.

Some time back, the Trimble people reported the arrival of another point cloud extension for SketchUp, Trimble Scan Essentials for SketchUp. This went ahead the impact points of their arrival of variant 2020.1 of SketchUp Pro. Furthermore, on the off chance that you asked me, having the option to effortlessly work with point clouds in SketchUp is completely the most energizing element of the current year's delivery cycle.

As of not long ago, Trimble delivered the Scan Explorer extension for SketchUp that permitted you to stack a point cloud and concentrate development points, planes, and so forth into the 3D model. The work process was a digit awkward in that the cloud could never stack into the modeling condition yet stayed in the watcher exchange. This is currently much improved in this new extension.

We should specify now that there are likewise other LIDAR and point cloud extensions for SketchUp, most eminently Undet, which you might need to look at. Utilizing the directions in my scripting section, you can even physically import (little quantities) of x,y,z information points into SketchUp yourself with only a couple of lines of code. In any case, that is a totally different methodology than what this Scan Essentials extension gives.

Is it accurate to say that you are searching for a snappy, simple approach to transform point clouds into 3D models? All things considered, it's your day of reckoning! We're pleased to declare a SketchUp reconciliation with the new Scan Essentials extension from Trimble.

With Scan Essentials, you can import, view, and model from 3D scan information straightforwardly in SketchUp — surprisingly fast. Keeping interoperability head of psyche, you can import an assortment of industry-standard record types, for example, E57, LAZ, and LAS just

as the Trimble RWP design from earthly laser scanners, versatile planning gadgets, and automatons.

When you've imported your document type, you can begin your 3D modeling work process in SketchUp. Huge informational indexes are streamlined utilizing Trimble's scanning motor to guarantee smooth modeling. From that point you can bolt on to points and drastically increment the exactness of your model. Sweet.

Ultimately, add on your last contacts to truly make it sparkle. Investigate and contrast the exactness of your model with the point cloud information utilizing a clever examination highlight. Exactness has never been simpler!

This extension works locally with point clouds that have been handled with Trimble's Realworks programming (in the RWP design). Furthermore, it is conceivable to stack clouds in E57, LAS, and LAZ designs, which makes this device usable with other information sources too.

We shall post more instructional exercises about this astounding extension soon, yet the accompanying arrangement of recordings will in any event kick you off. Blessed for us, the extension accompanies a 30-day preliminary, which should make it simple for everybody to give this a turn.

On the off chance that you are an overall contractual worker, metropolitan designer, or engineer, you'll love the simplicity and precision of Scan Essentials. Look at the advantages you'll get the opportunity to exploit in your work process with Scan Essentials:

- Bringing in and seeing point clouds from earthly scans, portable planning, and automatons inside SketchUp
- Modeling legitimately on the point cloud
- Capacity to bolt onto points
- Correlation abilities utilizing your 3D model and point cloud
- Capacity to change point cloud straightforwardness, change the choice need, and make section views

To begin utilizing this in your work process, download the extension directly from the SketchUp Extension Warehouse today. A 30-day preliminary is incorporated and the price tag is allocated to line up with your SketchUp permit. Cheers to great modeling!
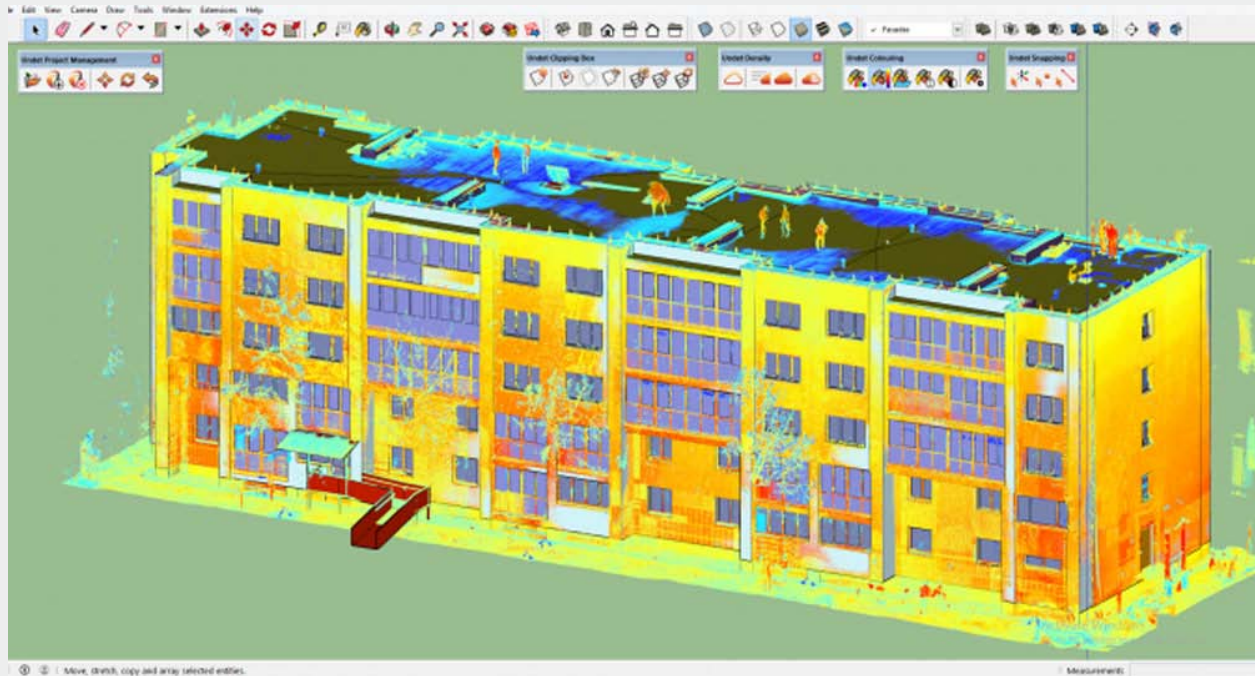
HOW CAN YOU MAKE EVERYTHING 3D-PRINTABLE?

Modeling in SketchUp is fun and easy. But when you have to print that model in a 3D printer, you will often face problems. Most of the issues you will face while trying to make a model 3D printable are solid errors. In other words, the model is not "Waterproof" or a "Manifold" solid. Turning that kind of SketchUp model into a 3D model is a real pain!

Today, we will show you how to make SketchUp models 3D-printable easily and comfortably.

You may have heard of a few SketchUp plugins related to 3D printing, some stuff like "Solid Inspector" or "Solid Solver". Don't get me wrong, those are excellent extensions and do quite well on their own. However, they are not exactly AI, and can't really automatically fix a model – you still have to do it by hand.

Fortunately, there's a solution from a SketchUp and iMaterialize joint venture, called "Printables for 3D Warehouse". Let us see how it works!

Consider a model with an intersection of three shapes. Not that the shapes are intersected using the section tools either – they just jut out and into each other blatantly. Quite obscene to a 3D

printer, right? Let's make it worse. Remove one face from one of the solid objects, and put a hole in another object. Eww!

Normally, with an unknown model this solid (#sarcasm), you will have to get in the field with the Solid Inspector plugin, and fight for your life (or the model's life, same difference really) for quite some time. However, now there is a much easier solution. You just upload it to the 3D warehouse and mark it as printable.
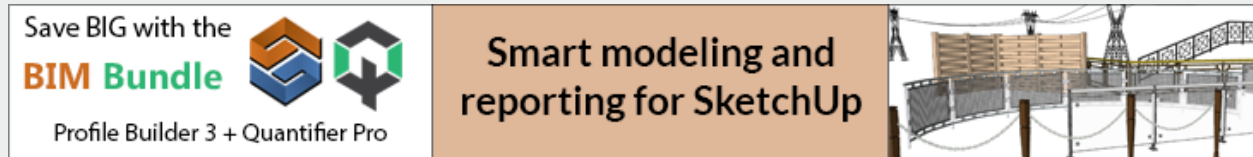
That's insane, right? All that work done by a check box? Really?

Actually, yes. Just upload the model to 3D warehouse the normal way (a short guide follows) and make it printable.

- Go to File menu > 3D Warehouse > Share Model

- A dialog box appears, asking for many information.

- You have to give a name to the model here. The rest is purely optional, but good practice to write something here.

- There is a privacy setting near the top, you have to choose either Public or Private here.

- Now comes the real deal. Look at the bottom of the dialog box. There will be a new option called named "I want this to be 3D printable." Beside there is the logo of Materialize. Check that box!

- Click Update and wait a bit.

After a while, you will see that there is an STL file in the 3D warehouse now, with that model name. This is indeed the file a 3D printer sees, not the drawing. Go ahead and download that. And then open it in SketchUp or some other viewer.

You will be surprised to see how cleverly the faulty has been dealt with. It wouldn't simply repair the model and put missing faces in. Who knows, you might have actually wanted it that way, right? What the iMaterialize process will do is to thicken the faces, making the missing-face solid actually a hollow solid object. Small holes will be patched up, and the base geometry will be kept as-is, just thickening faces.

Wonderful idea, right? And it requires so little of your effort!

However, there is still the fact that the process didn't really fix up the actual problem in the model, it just forced it to get solid. That was not what should have been done in the first place, right? So, we would still urge you to use the Soid Inspector extension or similar, to make sure your model is waterproof. Only then, use this method to finally clear up any hidden edge or hole you've missed.
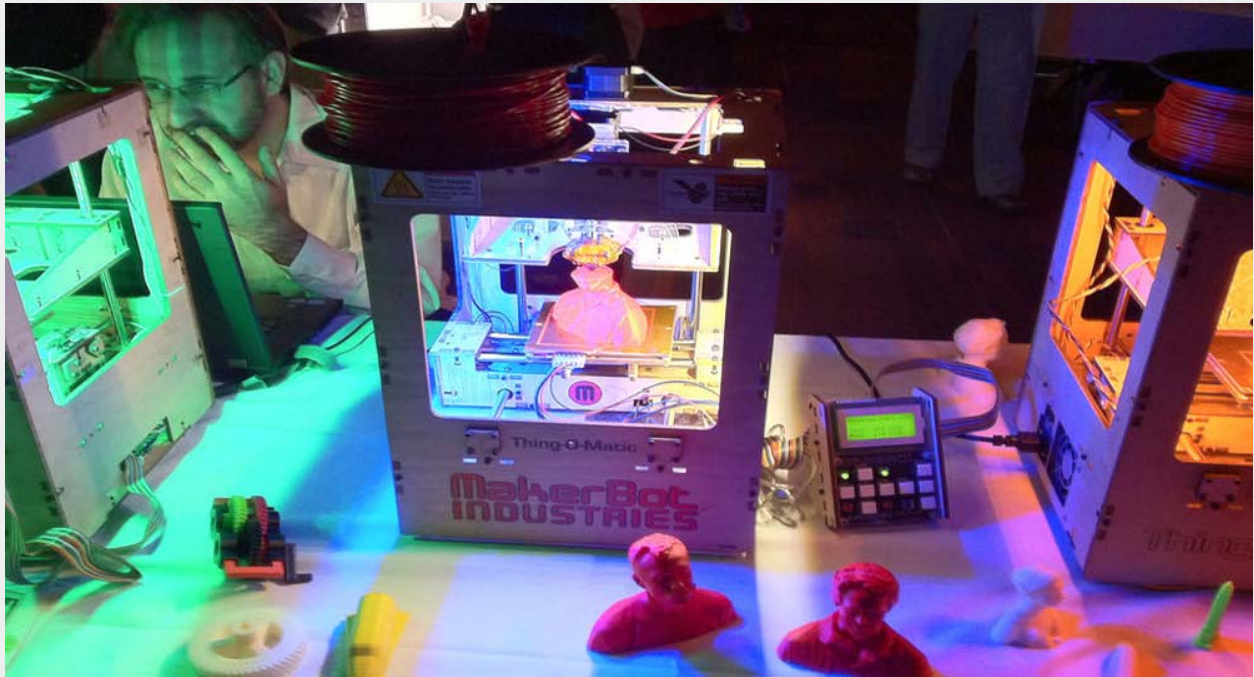
VIRTUAL DESIGN AND CONSTRUCTION WITH SKETCHUP AS DONE BY M MOSER

M Moser Associates is a global AEC firm specializing in workplace construction. They have been in action for only fifteen years, but within this short time they have already gained major traction with many big commercial construction projects. M Moser uses a methodology named 'VDC' implemented with SketchUp and LayOut – and it works like a charm!

What is VDC

According to Charles Corley, Director of Organizational Development at M Moser, VDC is Virtual Design & Construction. Which is a particular workflow that constructs the entire project model in 3D, instead of relying upon 2D drawings and specialized people to interpret them? All major stakeholders in the project can participate and understand the project model very easily

since they can directly visualize what the thing will look like actually in real-life, regardless of their expertise with architectural designs.

In VDC, a wall looks like a wall, a table looks like a table, and you can walk through the virtual 3D building as you would in real life. VDC thus becomes an effective communications tool that keeps everything transparent among different parties involved in the project.

How SketchUp helps M Moser focus in business

The legendary flexibility of SketchUp lets M Moser take on many kinds of projects, but their main focus goes on to designing workplaces, offices, etc. SketchUp and LayOut's capabilities expand way beyond the basics with the many plugins available online, and together they make up one of the best architectural and engineering design software ever built.

The problem with these types of projects is that they can be ever-changing. New technologies come up every day changing workplace requirements, and you have to be nimble to cope with the ever-changing times. With rather traditional projects, fast work is rewarded while you nail things down before estimates and construction begins, for the proper documentation and permits work. But large projects change and move like a live animal right from the get-go, and having an extremely adaptive design platform is the key to keep up.

How VDC and SketchUp is changing the system

While many office-owners still prefer old-time documentation, even for them VDC is quite refreshing and very less tiring to go through. The biggest issue with sending a bunch of documents to the client is to get hit with a "we don't know about all that, just tell us the price". While that could work, often in big flexible projects this becomes a major problem when you just need to show the client some things and discuss.

VDC works beautifully in this matter since it involves the client side in the designing work right from the beginning. Since they can now actually see how it would become, they can see if things are going on as they expected, or if some changes are necessary for any reason.

However, the biggest challenge of using SketchUp comes when you are working with stubbornly traditional people. Jason Li, Associate at M Moser, says that many clients hold irrational and outdated ideas about SketchUp. Like, "You can't use SketchUp for official documents" or "It's not accurate enough" or "We can't collaborate with consultants using other programs" etc. With each update, SketchUp has broken down these false assumptions one by one and now it seems everyone is jumping on the SketchUp bandwagon, for the sheer usability of it.

Why VDC is a boon for cost-efficient design

When this was asked to Charles, he gave an example he's seen at work just recently. One of the teams were designing a particular office floor, and they were into tables then. When the design team made a construction-ready model of the interior, the contractor reviewed it and instantly pointed out a design oversight. They said, if the tables were only four inches shorter, no custom parts would not be needed and it can be done with off-the-shelf parts, reducing the cost and time greatly. The designer team saw that reducing the table sizes by 4" wasn't harming any usability or aesthetics, and they proceeded to do that at once. All of this was done in less than half a day - which, without VDC collaboration, would have cause major headaches and arguments.

Handling VDC with SketchUp is not like working in a factory, according to Jason. It's not like you do your part and pass it on to the next person at the belt.

No, here you have to collaborate all the time, discussions and brainstorming are the natural weather –
and it all is possible with Trimble's robust cloud support for SketchUp and LayOut.

ADDING SKETCHUP MODELS TO ARCGIS URBAN

With the fourth technological wave incoming, more and more construction firms and government authorities are switching to 3D visualization of building projects before they accept the proposal. The requirement of truly look at a scene of how the project will look like – not just imagine in via abstract drawings – is becoming the standard. Using ArcGIS Urban, you can let your client or boss look at how the project will look in real life setting, but to do that, you will need to know how to use your CAD models in ArcGIS Urban.

In this guide, we will discuss how to import and utilize a SketchUp model in ArcGIS Urban. We will explore the steps to export the SketchUp model to the right format, importing it into ArcGIS Pro, upload it to ArcGIS Online, and finally publishing it on ArcGIS Urban. Let's go!

Stage 1: Export the SketchUp Model

- Open your building model in SketchUp.
- Select the entire model. You can use drag selection or "*select all*" option from menu. There is also the Ctrl+A shortcut.
- Right-click the selected model. Select "*Make Component*".
- The component creation box appears. You can put a name and other properties here.
- Uncheck "*replace section*" box, and click "*create*".
- Now go to the Export menu (in File menu) and then choose to export as COLLADA (**.dae**) file.

Stage 2: Import the model to ArcGIS Pro

- Open a new ArcGIS Pro project. Use a "*Local Scene*".
- Right click "*File Geodatabase*" in the Catalog tab.
- Select *New > Feature* Class.
- A box opens. Give a Name and an Alias here.

- Select "*Multipatch*" in the feature class type drop-down.

- Click *Finish* to get out of the box.

- Go to the *Edit* tab to click on *Create.*

- Find the *model file* option and click on the *green plus sign* beside it.

- A file choice box opens. Select the **.DAE** file you've just exported from SketchUp and click on **Ok**.

- The model will snap to your mouse cursor. Use that to move the model to where it should be placed on the map, and click there. Be careful in this step.

- Save your project. (*Edit>Save*).

Note: you can always select the model and use *Edit Tools* to adjust and fit the model in the exact position. When done, make sure you *Save* the project before proceeding.

Stage 3: Upload to ArcGIS Online

- Click Table of Contents and right click on the Multipatch Feature Layer.

- Select "*Sharing*" and click on "*Share as Web Layer*".

- A box should appear asking for various info about this model. Fill it up as necessary. You must input a Name and select a few tags.

- You can choose to save your model into a specific Folder if you want. It's not necessary, but it's a good organizational practice.

- You should also choose who to share the model to. If unsure, just select "*Everyone*".

- Click on *Publish* and your model will be uploaded!

Stage 4: Verify it in ArcGIS Online

- Open your *ArcGIS Online Organization* and sign in.

- Browse and find your uploaded model. It will be saved as a *Scene Layer*, found inside *Contents*.

- Click the thumbnail to open the *Scene layer*. It will create a Scene to show the model.

■ Check if it looks all right here.

Stage 5: Add the Multipatch model into ArcGIS Urban

■ Open the *ArcGIS Urban* Model into which you wanted the building model to fit.

■ Click *Add* and then select *Projects*.

■ Go to *Project Polygon > Draw* and click on "*Add Project*".

■ A box will appear asking for some information. Fill out the details as you want. You must give a Name here.

Press *Ok* to accept the model. A new project is created. Select it.

■ Click on Options and select *Configure*.

■ In the next box, open the *Scenarios* tab and select a scenario.

■ There will be Scene Layers available under the *Design Visualization* section. Find yours.

- Select the Scene Layer you've just uploaded to and viewed in ArcGIS Online, and click *Ok*, and *Ok* again.

- This will open up the *Urban view*, with your model sitting pretty in the exact location you've placed it in.

That's it, you're done! Now you can show your pretty model off in the real-life setting as it is intended to become.

SKETCHUP RUBY CODE EDITOR IS UPDATED

BLOG

This code editor extension offers a simple to-utilize and outwardly engaging approach to compose and alter Ruby contents straightforwardly inside SketchUp. These contents would then be able to be utilized to make calculation, include usefulness or include information inside the SketchUp 3D modeling condition. The SketchUp Ruby API gives a broad arrangement of capacities to automatize SketchUp from multiple points of view or make scripted, computational math.

The developer, Alex Schreyer made this editor basically for two reasons: One is that Alex needed an approach to alter and run SketchUp Ruby code directly within SketchUp's 3D modeling condition. Regularly this is done in an outer editor, yet having an interior editor takes into account utilizing both scripting and modeling simultaneously – relying upon your requirements.

The editor needed to give simple admittance to the Ruby coding condition and act more like a genuine code editor. To achieve this, I included a touch of jQuery (and jQuery UI) enchantment to make it look great and have some extra visual highlights (for example the tabs and menus).

Alex additionally included the fantastic CodeMirror grammar highlighting motor. This gives the editor multi-language code highlighting, right TAB control, find/supplant, section coordinating, code collapsing, and numerous different highlights. Simply load the module and check it out to see with your own eyes that it is so natural to utilize!

The other purpose behind this extension is that when you compose code, for all time you need to look into documentation. To make this simpler, Alex included a lot of reference webpages to a browser window. Additionally, a dropdown beneath the editor contains some normal code pieces

that can be embedded at the current cursor position. I am additionally exploring different avenues regarding a code-finish include that you can conjure anytime by clicking CTRL-SHIFT. It contains SketchUp's classes and strategies.

The SketchUp extension Ruby Code Editor held a best position on Alex's daily agenda for a long time as of recently. He at last got around to giving the code a significant redesign and can now gladly report that variant 4.0 has quite recently been delivered. In the event that you are a prepared coder or a novice simply needing to evaluate scripted calculation, look at the new form, there are some very decent new highlights in there.

## Highlights of SketchUp Ruby Code Editor

- Excellent and clean editor UI with menu-based UI

- Light/dark themed editor

- Permits executing multi-line Ruby code straightforwardly in SketchUp

- Works with files of any size

- Quick opening and code highlighting of huge files

- Most as of late utilized file list

- Console alternate route

- Line numbering in editor

- Indenting/un-indenting of code blocks

- Coordinating sections, current line highlighting

- Fix/re-try in editor

- Find/supplant in editor

- Code collapsing

- Supplement code bits at cursor

- Code-consummation for SketchUp classes and techniques

- Programmed reinforcement file creation

- Different choices: font size, tab/space indenting

- Fix of code execution

- Single fix choice for whole code

- Results window monitors run history

- Reference web browser for regular websites

- Investigate determination object properties and qualities

- Choice for direct admittance to the Ruby support

- Choice to alter default code scrap

- Clean printing of code

Where to get the SketchUp Ruby Code Editor

As usual, it's ideal to simply download it or update from the Extension Warehouse discourse directly inside SketchUp. Obviously, you can discover it in SketchUcation's Plugin Store just as on the developer's website.
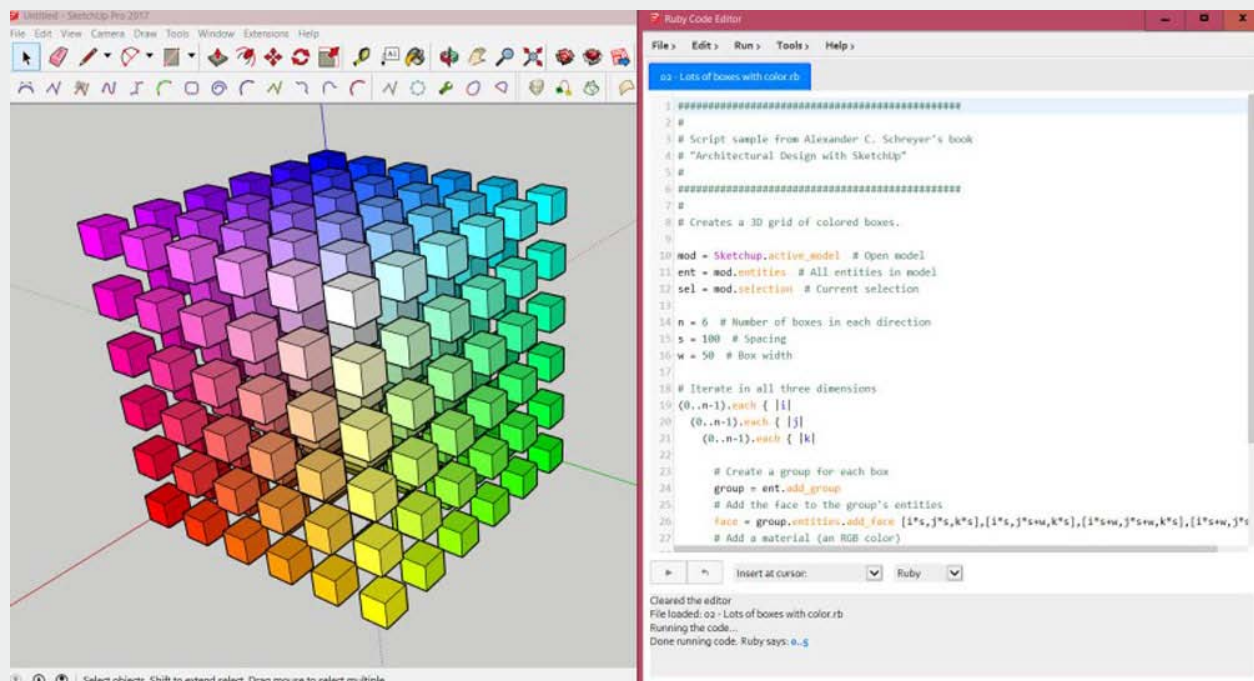
PAUL HENSEY AND HIS SKETCHUP GARDENS

One of best modern landscape and garden designer's southern England has ever seen is Paul Hensey. Based in Sussex, Hensey has left his masterwork footprints all over the world. With quite a few RHS show gold medals under his belt, Hensey wields his magic in landscape sculpting and garden design using SketchUp. Today, we will get to know how Paul Hensey does it.

Not only a designer and landscape architect, Hensey also is well-known author on the subject, writing books and contributes to many journals and magazines. He is often sought for his mastery of SketchUp and organic design. Paul let us know how and why he chose to combine SketchUp and Landscaping, thus defining his professional life.

How it all began

Even when he was very young, the kid Paul Hensey often liked to take things apart to see how they worked. As expected, this created a lot of unnecessary expenses his parents were not happy about, but young Paul gradually got to understand that behind every artificial thing there is someone's design, someone's ingenuity. The moment he got that clear, he fixed his mind on becoming one of those people who designed stuff.

Hensey started off as an Industrial designer, but gradually shifted towards garden and landscape design in the 90's. Thus began his presently-ongoing, immensely successful, and very rewarding to the soul, career.

Hensey's reason behind switching to landscaping has more to do with design fruitfulness rate than anything else. In construction or industrial designs, you may have to make a hundred designs to see only one of them get built. In landscaping and gardening, almost everything you design will materialize. Some might take a few years to grow!

Also, there is the matter of personal connection. In most commercial designs, you don't get to meet the guy who wants it built – they just wok through a lot of middlemen, often never seeing the designer in person. But in case of landscaping it is completely opposite – the vision has to transferred to the designer manually and for that mano-a-mano talks are a necessity. This way, a landscape architect always gets to meet the people who ordered it, gets to know their personal views. It is almost always a quite enriching experience.

Picking SketchUp over others

As he began his career in the industrial sector and then shifted to landscaping, there are few CAD software that Hensey did not work with. He saw how different they were from each other, and what each other's strengths and weaknesses were. However, he gradually got to understand that to be a truly successful designer you have to pick ONE software and stick to it.

The reason for this pretty simple. If you target being a jack of all apps, you will never be master of one and will keep compromising all your life. Not to mention the time you will waste switching between stuff.

Thinking thus, Hensey went and chose SketchUp – even while it was in its infancy, before even Google acquired it. But why?

Back in those days, SketchUp was not as versatile and agile it is nowadays. We are talking about pre-2005 era when the world was still green. There were not many extensions available those days, neither much knowledge on the web about SketchUp. It was still a free tool for starting 3D modeling.

However, as young Hensey has a keen sight to see how things work instinctively, he understood the huge potential of SketchUp even back in those days. He could not do much of his industrial design stuff on the old SketchUp, but he saw and understood it's great potential – with a bit of tinkering – to do landscape design. So, he remained faithful with SketchUp, and he has been rewarded enormously and regularly, with each update and release of new, powerful extensions.

Granted, there are more powerful albeit hugely expensive software available in the market today. However, Hensey will not budge from SketchUp, since he also teaches designing to the young generation. Most of them haven't ever done any kind of CAD before. And in this matter, SketchUp is hugely helpful, with its mellow learning curve and easy, clean interface that doesn't scare a rookie.

SketchUp plugins Hensey recommends

- JHS Powerbar – collection of essential tools. Especially useful is the Pipe Generator to design the waterworks, which are basically the lifeline of any large automated garden.

- Fredo6 Plugin set – another collection of tools extremely important for organic modeling.

- DzConvert to construction linedz – simple but great tool for aligning organic shapes and assembly drawings.

Apart from extensions, Hensey encourages everyone to take advantage of the LayOut features, especially the one which updates elevations automatically.

GLANCY NICHOLLS ARCHITECTS AND SKETCHUP - A FINE DUET

Established by Lyndon Glancy RIBA and Patrick Nicholls RIBA in June 2004, Glancy Nicholls Architects (GNA) Ltd. is a Royal Institute of British Architects (RIBA) Chartered Practice. GNA is persistently associated with prominent public and private division advancements, working with many recurrent clients, including blue chip associations, across numerous areas.

GNA is dynamic in instruction, understudy convenience, private, medical services, relaxation, modern, workplaces, and various ace arranging projects. For over ten years, GNA has had a great outreach, extending the training's capacity to react to new open doors introduced by new advancements as they become accessible or as they invigorate. Tech advisors, for instance, worked close by the GNA group to relocate over to Revit as the foundation of decision, helping the training to build up a BIM stage in compatibility of BIM Level 2 accreditation.

One occurrence of this proactive methodology has been in GNA's extending utilization of SketchUp as a calculated displaying instrument for beginning phase design. GNA had just begun utilizing SketchUp, however the organizations have investigated its more profound abilities with the objective of expanding the modernity of how GNA presents ideas to its clients.

"SketchUp has helped them address a principal necessity by the way we convey thoughts to their clients," clarifies Paul Hutt, Director at GNA. "This thought of correspondence – getting the idea across to the client in a manner that is so nitty gritty and 'similar' that they can share the vision you have about how the project can wind up – is something all architects need to fight with."

Hutt glances back at how ideas were customarily introduced not very far in the past and proposes that the methodologies once utilized currently look old. High quality models, 2D drawings, craftsman's impressions, materials tests, and reference photos of different projects utilizing comparative materials, were assembled at significant cost to exhibit how the last project would look.

Changes at the underlying design stage would prompt the entire calculated representation measure beginning once again; or if nothing else parts of it. "It was a ton of exertion", says Hutt. "It included various aptitudes and trains, and that being said, would not really pass on the vision with complete and dependable exactness or a very remarkable reasonable feel. Clients needed to practice a level of creative mind to see the likely result and architects needed to recount to the story to make it wake up. It was more 'talk-through' than 'stroll through'."

The GNA group have become submitted clients of SketchUp for design ideas. In the mediating time frame since they previously embraced the product, they have seen that clients anticipate that models should be introduced in the unmistakably more client inviting design that SketchUp makes conceivable.

It's anything but difficult to learn and simple to utilize. It's likewise an adaptable stage; offering an 'Expansion Warehouse' that contains more than 400 modules that can layer extra instruments and highlights on head of SketchUp. One of the extra instruments that has demonstrated of incredible incentive in driving more noteworthy client comprehension of the model at the applied stage is Enscape; permitting constant 3D walk-throughs with live reconciliation. Diverse design alternatives can be assembled up in a conference, on the spot.

Carter says that the capacity to change highlights of the design (shadowing, materiality, size, shape, actually any part of the design or how it is introduced to make it wake up) progressively, powerfully, in light of client solicitations and recommendations, accomplishes more than basically assist the project:

"It adds a measurement to our relationship with clients as well. Innovation of this nature satisfies an assortment of useful requirements without a doubt; however, it likewise conveys a gigantic enthusiastic advantage for all gatherings. Clients feel undeniably more included. They see that we can accept their thoughts and adjust the design to all the more intently meet their prerequisites. They feel part of the cycle. We as a whole gotten to a greater extent a group."

"At the point when we began utilizing SketchUp, around ten years prior, it was a groundbreaking thought; it was out in front as a creative method to introduce beginning phase design. Presently clients anticipate it," says Hutt.

"Similarly, powerful in our appropriation of SketchUp, notwithstanding, has been the way that new starters at GNA expect it as well. Graduates find out about SketchUp at college so they show up realizing how to utilize it. Regardless of whether they didn't, it's anything but difficult to learn in a short space of time. I'd recommend that SketchUp hasn't recently changed the way of life of GNA, it has changed the way of life of the architectural calling."
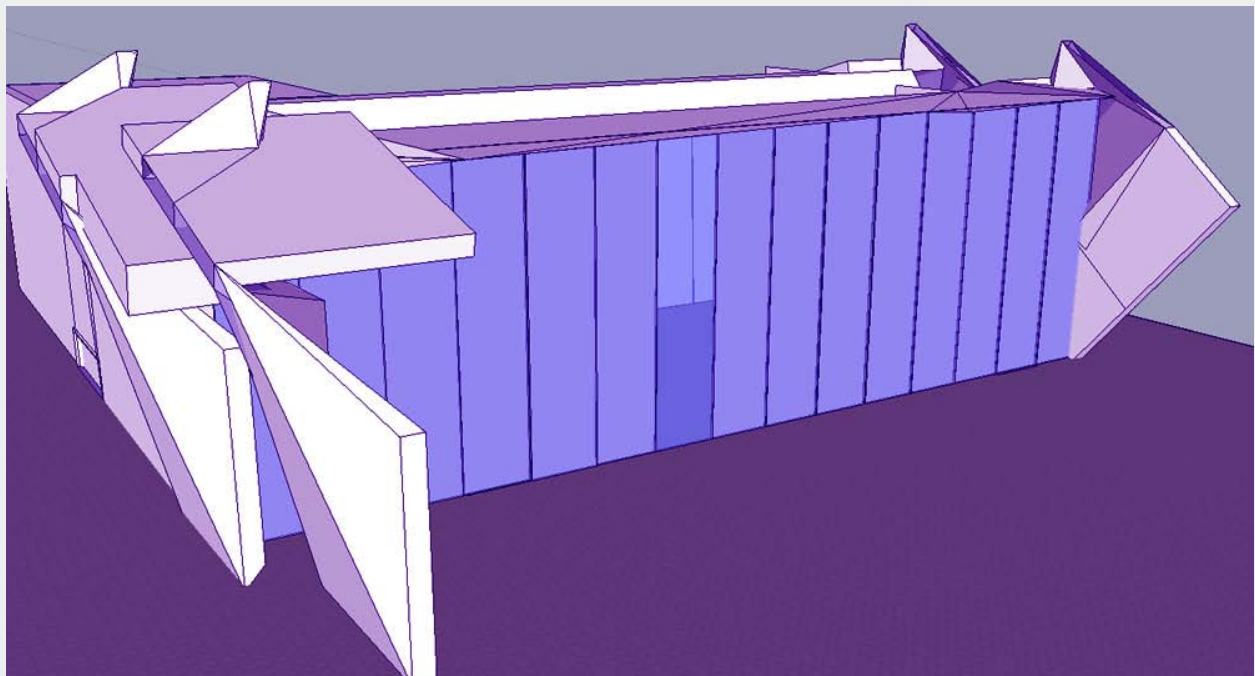
DEBUNKING 5 COMMON MYTHS ABOUT SKETCHUP

There are many people in the world who have built their careers on and around Trimble SketchUp by now. A lot of real, live projects are ongoing depending solely on SketchUp models and calculations. And yet, there are many myths circulating around the watercooler about this wonderful software. Today, we will try to dissolve the top 5 myths about SketchUp.

SketchUp is well loved by a lot of people, but it is also hated by a large amount of people. Ah, the price of success! But the fact is, SketchUp has always been supplying what many of the frontline 3D models are only now catching up to. For example, Revit, Bently and Autodesk are all doing stuff with BIM what SketchUp has already been doing with some plugin support.

Most of those "other software" users will tell you at least one of the following reasons why they chose not to use SketchUp. Well, here are the answers you can throw back now.

1. SketchUp is not capable of modeling complex objects

Dead wrong! The Walt Disney Concert Hall is one of the most complex structure by shape – and it was successfully represented by a SketchUp model later, exact down to the last millimeter. The 3D render of it (using some of the SketchUp extensions) looks livelier that the real thing.

SketchUp can not only design intricately detailed complex 3D objects, it can also render them in lifelike photoreal scenes. We have seen every complex thing designed in SketchUp – from modern residential and commercial buildings to Parks, Museums, Bridges, even whole city blocks – to small, complicated artful objects like jewelry or even organic stuff. With some good plugin support, what you can design in SketchUp is limited by only your imagination.

2. SketchUp is not BIM

No, it is not. Neither is AutoCAD. Just like most 3D modeling software must find another software's support for Building Information Modeling (BIM), SketchUp must use extension support as well. And we daresay it does that quite well, sometimes better than even Revit or stuff like that. In fact, most BIM programs come with limitations, but with SketchUp, you can add a limitless amount of analysis and data/document export extensions.

3. Development of SketchUp is not going well anymore

This is a downright lie or ignorance. The development of SketchUp and other related Trimble products, and even that of most of the third-party extensions, are going very well and smoothly. Its power increases exponentially every version, which pop up regularly with substantial number of new features and ability amplification. And with hardware support, you can outperform some of the big players in 3D modeling game in terms of performance and capability. When you consider how cheap SketchUp is, having to deliver all that, you must take your hat off to the developers.

4. SketchUp cannot do what they need

True, alone SketchUp is not much. It does do an excellent job of 3D modeling and documentation that you can fairly rely upon to make small projects, but that is it. However, SketchUp's main strength lies in its versatility and extensibility via plugins, or extensions. Many of them are actually free and do a fantastic job beyond many frontline 3D modeling software's capabilities.

With the right choice of extensions, you can turn your copy of SketchUp into an architect's workhorse, a lean mean BIM-ing machine, a game developer's object production studio, a sculptor's visual playground, make it suitable for anything from heavy construction to jewelry making. SketchUp's capabilities can go through the roof if you play your cards right, with truly little extra cost – and they say SketchUp cannot deliver? Preposterous.

Besides, there are a lot of hidden tools and shortcuts packed inside the modern versions of SketchUp. Many people miss them in the first glance – that is their problem.

5. Graphics in SketchUp is outdated and outperformed

Admittedly, SketchUp does have a distinct, cartoonish nature of rendering stuff. Many professional SketchUp users will notice this; many a day they have seen some building render somewhere and blurt out, "SketchUp job, ya?" It seems, Trimble intentionally keeps it that way. Probably. It breeds familiarity, and is classy in its own way.

Again, rendering in SketchUp can be augmented with plugins, provided your system can handle it. Go out in the webs and you will find many breathtakingly beautiful renderings done via SketchUp. You will find furs and windswept grasses, views through and reflected on glass, and animals and humans too, rendered in photorealistic awesomeness.

To be frank, if SketchUp is really so bad according to "them," why are 30 million people using it? People are not stupid. So far in the 3D modeling business SketchUp delivers the most versatile, flexible, cost-effective solution ever – and we have a feeling that it would remain so for ever.