The Hatchway leading to the world of 3D

2010 September

sketchup urSpace

"We want everyone to experience the power and fun of building their ideas in 3D, not just the CAD jockeys or the tech geeks, but everyone!

Brad Schell,
SketchUp's inventor"

2010

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September
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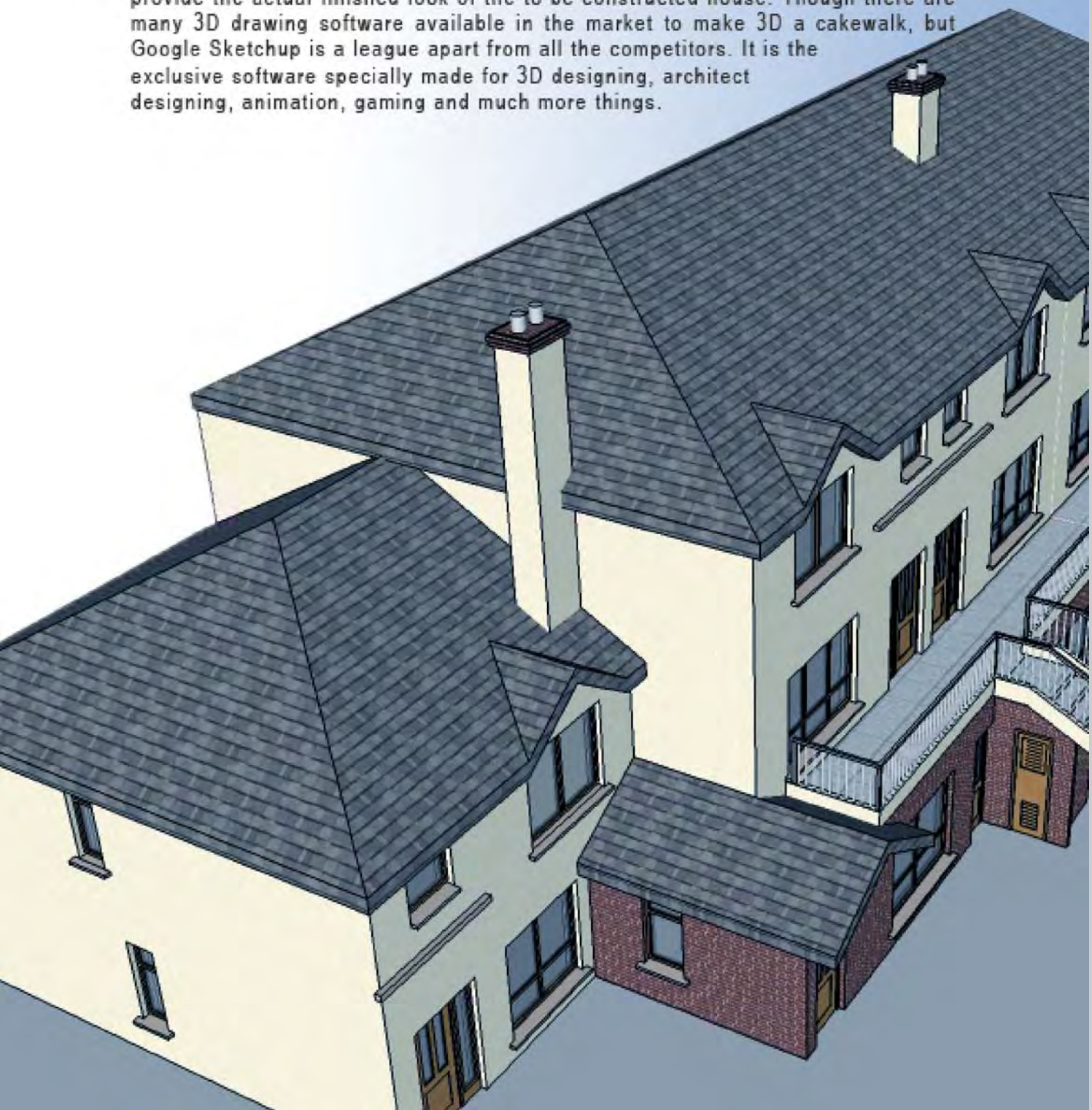
EDITOR'S DESK

Building one's own home is a dream come true! A little assistance to this magnificent work is like a godsend, especially when there are so many things to worry about. Chalking out or drawing the proposed plan is the first and most important step in any construction work. If we go by the old school of thinkers, then they would suggest sketching the plan on a paper with pencil and nothing else. But we belong to the cyber generation and this is the age of virtual reality. So who cares what the ancients have to say! Today 3D life like sketches can be made which will provide the actual finished look of the to be constructed house. Though there are many 3D drawing software available in the market to make 3D a cakewalk, but Google Sketchup is a league apart from all the competitors. It is the exclusive software specially made for 3D designing, architect designing, animation, gaming and much more things.



September

SKETCHUP ur SPACE

Sketchup was first invented by @Last Software. After seeing its huge potential Google bought it and kept upgrading time after time. It is a drawing software which allows you to draw 3D models of the object from a simple nail to Burj Khalifa, world's tallest building. There are two versions of Google Sketchup – free and paid (Sketchup Pro). The free version is great for the average person while for professionals there is the Sketchup pro to deliver the finest result.

By the user friendly drawing software like Sketchup, you can easily draw the building blocks. Using the tools like Edge and Face one can draw a 2D diagram of the model. And then you can make it 3D by the Push and Pull application. A Paint Bucket Fill tool is used to paint or apply texture to the objects. There are also a lot of applications including lighting, interior decoration object and furniture to enhance the accuracy and give a real time feeling.

Google Sketchup is a boon for the 3D designers especially for the architects. They are really getting help from this software in their works. The architect now can draw an exact model, rotate it, view the model from every angle and change it if required. Animators and gaming designers are also getting huge support from the Sketchup model. Even the school students take the advantage of 3D modeling in their project and class work. The general people also use it to redesign their places.

We are now becoming a part of this innovative programming. It is a challenge for us to make this innovation reach out to the people. Over 2 years www.sketchup4architect.com is working on Sketchup. And with our huge experience on the field, we intend to lend a helping hand to the aspiring designers in the form of this magazine. We promise to provide assistance in this wonderful facility delivery process by which you can dramatically improve your designing project. I urge you to become an integral part of the 'Sketchup ur Space' by joining us and help us with this transi tion!

KNOWLEDGE IS THAT FRUIT THAT GROWS BIGGER WHEN SHARED!

Best wishes,
Debarati Nath

For any feedback and query please mail us in
debarati@sketchup4architect.com

SAY HI! TO THE DIFFERENT FEATURES OF GOOGLE SKETCHUP

BY DEBARATI

Sketchup is the most useful and popular 3D designing software available in the market today. It is very easy to understand and has a treasure trove of excellent applications. It is really awesome to have a foresight of your dream project far before it has actually started. There are lots of applications available in this software. So let's have a look:

Edges and Faces:

These are the two basic tools for drawing included in the Sketchup program. One can draw a line which is called Edge and when several edges are created a 2D shape is formed called Face. In this way, you can easily draw the diagram of any model.

Push/Pull:

After creating a 2D diagram, it takes a blink to change it into 3D by the Push/Pull technology. This Sketchup patented tool can transform a rectangle to a box with the toggle of a mouse.

Accurate Measurement:

You can add the accurate measurement to get a scaled view of your project. Additionally you can export your geometry into other programs like AutoCAD and 3dz MAX in Sketchup Pro.

Follow Me:

Follow Me is a unique tool of Google Sketchup which helps in drawing an object, when only half of the object is drawn. For example, if you want to draw a ball, you will just have to draw the half of the circle and the Follow Me tool will automatically draw the other part.

Paint Bucker:

The need to paint an object is fulfilled from the huge color palette of the Paint Bucker.

Group and Component:
By using the Group and Component tool of Sketchup you can easily create sub-object which can be moved easily.

Shadow:
To make your model more real, you can add shadow by the use of Shadow Engine of Google Sketchup.

Section:
You can view the inside of your design by the excellent tool named Section. It temporarily cuts down a part of your design through which you can see the detailing of the inside.

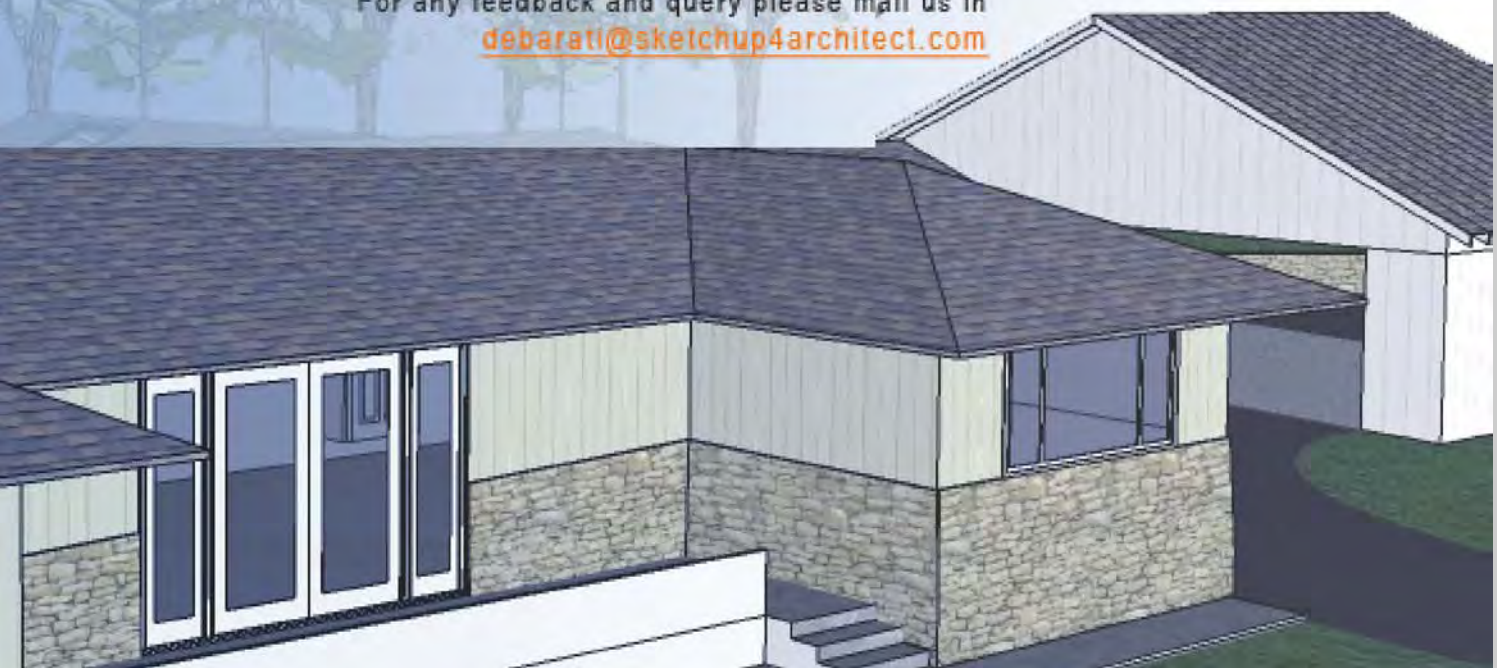
Scenes:
This is a unique tool that can be used to make animation. A series of images can be given motion with the help of this tool.

Look around and Walk:
If you want to have a first person experience, then Look Around and Walk will enable you to virtually walk through the design.

Dimension and Level:
Dimension and Level tool of Sketchup helps you to add dimension, annotation and other many other glamorous items to your model.

There are lots of other features of Sketchup namely, Sandbox tool, 3D Warehouse, importing 3D and images. But the best feature of this program is that it is very user-friendly. All of these features make Sketchup the best 3D design software. It will definitely help you to visualize dream before completing.

For any feedback and query please mail us in
debarati@sketchup4architect.com



HOW SKETCHUP COMPONENTS CAN SMOOTHEN COMPLICATED 3D MODELING PROCESS?

BY RAJIB DEY

SketchUp components are the collection of generic objects or entities for systematizing and replicating portions of your 3D model. Components can be instanced and reprocessed several times throughout a model.

The Components Browser in Sketchup permits you to insert and arrange components for utilization within your models. If you apply components it will minimize your file sizes efficiently. Components are easily editable and if any changes occur to any of the components every other component will be changed simultaneously.

Sketchup comes with a handful of samples like doors, window, furniture etc. which can be dragged and dropped into your model. These models have the ability to cut their own openings at the time of placement. Sketchup's "cut opening components are really helpful for exterior building models.

One can access these models from the components dialog box. Select window components in Sketchup to open the dialog box and then select the Architecture collection from the Navigation drop-down menu.

Components are mingled with some very helpful geometric tools which lead to easy scaling, dividing and aligning of components.

One can create "components" which permits him to place a prearranged figure in several places and making changes in all locations by just editing it once.

As for instance a chair is drawn once and it is being changed into a component, then 6 instances of the component are used to surround a table. Edits to the original "definition" will then propagate across all of its instances. The Component Definition class includes the global entities and settings for each definition.

The best part contains clustering faces and edges into a solitary, transferable entity (a concrete beam for example). Components have the same grouping features with the additional benefit of repeated updating for similar instances. Components are ideal for furniture and other general elements like windows and doors

Elements are 'grouped' into bunches of accumulated elements or formed into 'components'–Groups and components don't have an effect by 'stickiness' instead they are very helpful for organizing the model – Groups are 'instance' based elements while components are more like 'type'.

For any feedback and query please mail us in
debarati@sketchup4architect.com

COMBINING AUTOMATION WITH CUSTOMIZATION

BY JUSTIN ANDERSON

Henry Ford discovered the power of automation when he mass produced his model T. Automation provided a fast and efficient way of building cars and the principle of mass production, and the division/specialization of labor, was advances that the economist Adam Smith pointed out were fundamental in the creation of wealth.

However, automation does have its drawbacks. In most processes, automation means less flexibility - less customization opportunity. So lets talk about one process - unfolding Sketchup models into 2D flat patterns for eventual printing, cutting and assembling into scale-matching 3D paper models. There are various tools for this - most notably are Jim Foltz's plug-in (http://sketchuptips.blogspot.com/2007/08/plugin-unfoldrb.html), Waybe (http://waybe.weebly.com/) and Pepakura (http://www.tamasoft.co.jp/pepakura-en/). All of these unfolding tools vary (for instance, JF plug-in and Waybe are Sketchup plug-in while Pepakura is a stand-alone program), but they all approach the task of unfolding Sketchup models with some combination of automation and customization.

Waybe has attempted an interesting mix of customization and automation. The plug-in comes with an "auto unfolder" which can attempt to unfold any contiguous set of Sketchup faces that it is offered in one single click. Such a feature is unique to the unfolding software mentioned. However, if it adhered to automation alone, the ability to customize unfolding - for instance, if one wanted the 2D cutouts to be arranged in a different way, could be lost. To inject customization capabilities into the plug-in, Waybe also allows you to assign edges into a "broken" or "fixed" category essentially telling it that the edge should be an eventual cutting edge (broken) or an eventual folding (fixed) when the 3D object is unfolded.

Interestingly, the software won't break if you give it bad input - for instance if you have a cube and you assign every edge as a "broken" edge. It will simply attempt to follow the input, when feasible, and revert to its automated engine when it encounters input that is impossible to carry out.

Next time you are using a Sketchup plug-in remember to ask yourself - how has the software incorporated the ideas of automation, to save time, and customization, to allow flexibility? If you are designing a plug-in, ask yourself - to what extent can I combine those two important design principles?

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debarati@sketchup4architect.com

blog

REALIZE DREAM BEFORE IT BECOMES REALITY

BY DEBARATI NATH

You are thinking of building your dream project and this is a special moment for you. Of course you want this dream to be picture perfect. In the past years you could not see what your dream project would look like in real life, but now with the tools of SketchUp this choice is also in your grasp. Only a few mouse clicks and you get a complete idea of your dream project. If the bedroom according to your planning is not quite matching with the other angles in the house then you can maneuver it. So that at the end of the day when the project is ready, people will be awestruck by the interior designing of your house. Houses are not mere bricks and sand they are dreams. So realize your dreams to the fullest with the latest 3D construction designing option of SketchUp.

As the corner stone of the construction of your building deals with planning and designing, Google Sketchup makes this complex procedure easy and fun filled. According to Rodd Merchant, VP Engineering Services Group, JE Dunn, "SketchUp is a great visual aid. It's absolutely made us better, more intelligent builders. We're more confident and more productive - and just as important, we're dramatically reducing our risk." This user-friendly software helps the architect to create a 3D model of the building which they can rotate, view from every corner, find out the mistakes and make necessary amends to the model. This paperless planning dramatically reduces the wastage of time, money, material and human energy.

In this process, the proprietor of the building, the designer and the architect can visualize the 3D model of the building, approach alternative way and perfectly plan the schedule and cost in a logical order for the project. That's why it is counted as an important tool helping in risk management. The architect can use Sketchup for different stages of construction like: Detailing, Request For Information (RFI) graphics, Site logistics, Design and construction validation, Digital team collaboration and communication, Sales and marketing, sequencing, communication with the architect and contractors and creating professional presentation using Layout. In this way, you can have the virtual look of your building and step by step idea about it. Now, for a grand invention names Google Sketchup, you can start to build your home quickly and in a hassle free way.

For any feedback and query please mail us in
debarati@sketchup4architect.com

TIPS ON BUILDING A PERFECT GARDEN SHED

BY DEBARATI NATH

Building a perfect garden shed that will enhance the beauty of your garden is a tough job. The reason is that the shed should match with the tuning of your garden as well as not doing any harm to the plants nearby. The design of the shed must add beauty to your garden. So it is a real headache to choose the right type of garden shed. But don't forget, you are now living in the era of cutting-edge technology. So there are lots of gadgets to help you on this mission. Among many designing programs, Google Sketchup stands tall in the league. It is really exciting to have a fore-view of your garden shed just as it will be once built and the 3D technology of Google Sketchup programming has made this possible.

First of all, you have to select a design as per your choice. You may surf on Internet or simply go to the Google Warehouse to get up to date as well as classy designs. While choosing the design always keep in mind that the shed must have usability and not a fashion statement only. After choosing your design you just have to use some features within Google Sketchup to make a virtual shed for your garden on your computer screen.

Now you can draw your garden and along with this your preferred shed design. You can easily draw this with the help of the tools like Edges and Faces of Google Sketchup. Once you are satisfied with the design, you can make the design into 3D form by the tool Push/Pull in a few seconds. By adding a new dimension in to your drawing, you can have a proper idea about how your garden shed will look like after completion. After visualization of 3D model of your future shed, you can decide whether you want this type of shed or something different.

After figuring out the 3D model, you can add colors as per your preference on the shed. You can use the Paint option to choose colors from a vast color palette. Simple coloring looks good if painted with creativity. After completing your shed, you can see the design from all angles and make addition or alteration on that design using Sketchup. You also can add some beautiful furniture from Google Warehouse like a deck chair or a nice swinging chair with it. Moreover, you can arrange 3D plants around the shed from the catalog of Google Sketchup.

These steps will allow you to gain a vivid idea about your garden shed. And this way Sketchup definitely makes your work easier and cost effective. This will also lessen the chance of architectural mistake in the shed. So, with the assistance from Google Sketchup, you can have a beautifully designed garden shed without investing much money and efforts.

For any feedback and query please mail us in
debarati@sketchup4architect.com

MAGAZINE DETAILS

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Head Office:
GLOBAL ASSOCIATES,
P-100, Block A, Lake Town, Kolkata, India, Zip – 700 089
E-mail: enquiry@sketchup4architect.com
Website: http://www.sketchup4architect.com

Editor:
Debarati Nath
Contact: debarati@sketchup4architect.com

Guest Columnist:
Justin anderson

Designer:
Ramesh Kommana
Contact: ramesh@webworldsolution.com

Promotion:
Rajib Dey
Contact: rajib@sketchup4architect.com

Marketing:
Manoj Kr Singh
Contact: manoj@webworldsolution.com

For any feedback and query please mail us in
debarati@sketchup4architect.com

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