

**CAD** = Computer Aided Drafting or Computer Aided Design. You generate 2D and 3D drawings using the computer to draw.

## WHY USE CAD?

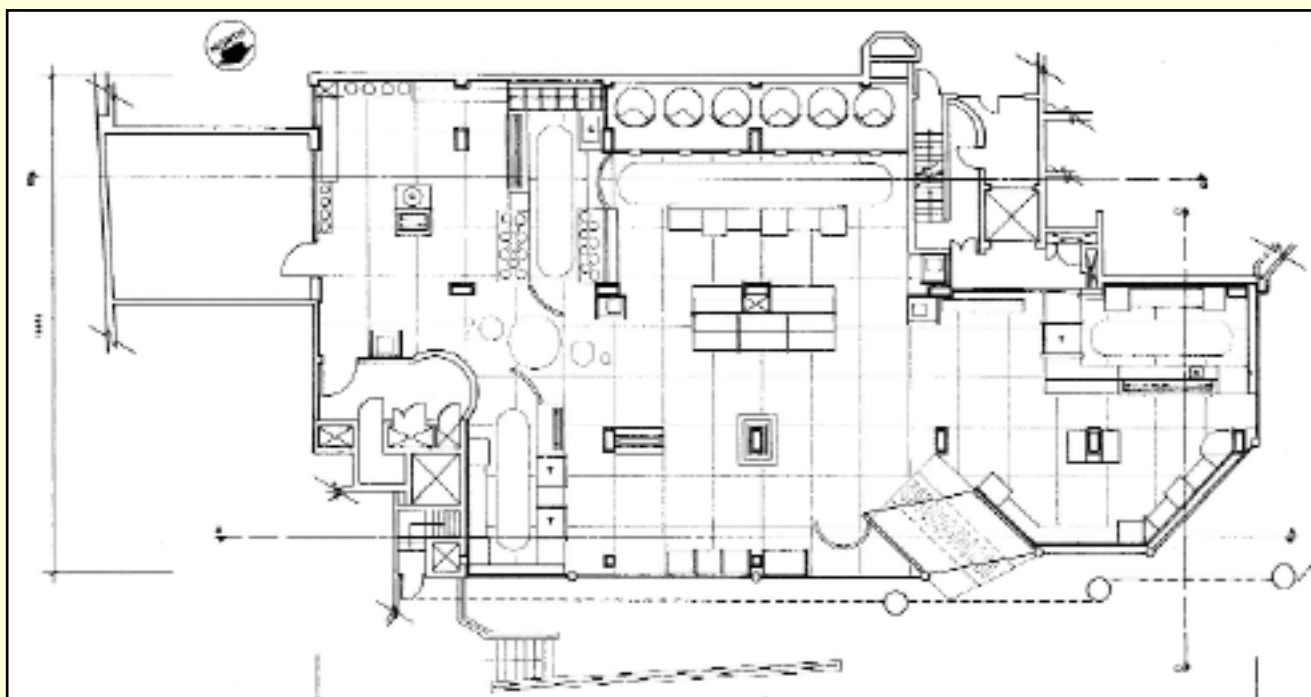
CAD is used consistently throughout the Architectural and Design professions. Although there are various other programs available (Autocad™, Microstation™, Allplan™, etc.), traditionally, Architects have used Autocad™ and Interior Designers, VectorWorks.

VectorWorks is very interactive and all the way through the drawing process shapes, dimensions, etc. can be continually modified. Once an object is drawn and saved, it can be re-scaled and details added to it. Furthermore, any object you draw e.g. doors, windows, furniture, can be brought into any future drawing. This enables you to save time and explore alternative ideas easily.

😊 VectorWorks drawings can be exported as .dwg or .dxf, the Autocad file extension, making it compatible with systems used by architects, fitters, as well as other programs.

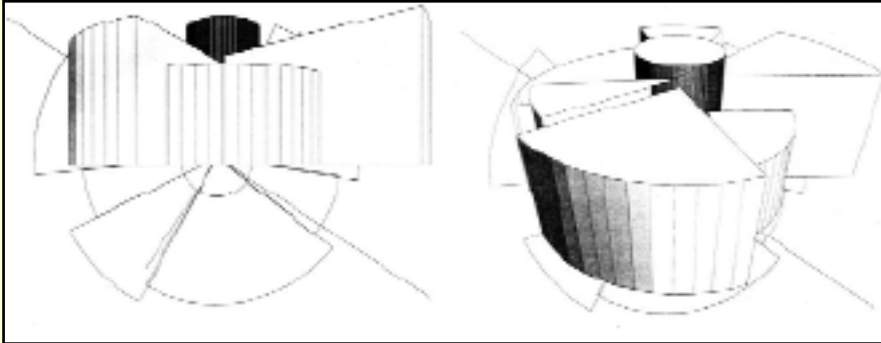
There are three main ways you can use CAD to help you with your projects:

1. You can use CAD to create 2D drafting drawings (Fig. 0.0.), which will be used by all the professions involved in the implementation of a project. For example, if your project involves the construction of a bar, you will need to give the fitter a plan, elevations and sections of the bar, with annotations and measurements, for them to be able to build it and understand your design intent.

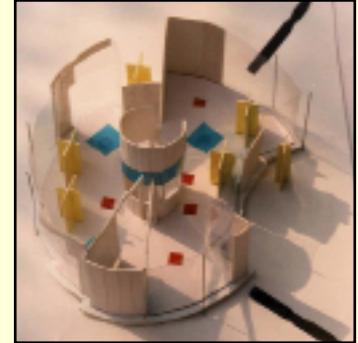


(Fig. 0.0.)

**2.** You can use CAD to **visualise the space** you have to work with in 3D and **manipulate** the drawing to quickly create **different views** that you can print (Fig. 0.1.). You can then use those prints to sketch with, **develop your design ideas** and create, for example, a perspective drawing or even build a model (Fig. 0.2.) using the floor plan as a template.



(Fig. 0.1.)



(Fig. 0.2.)

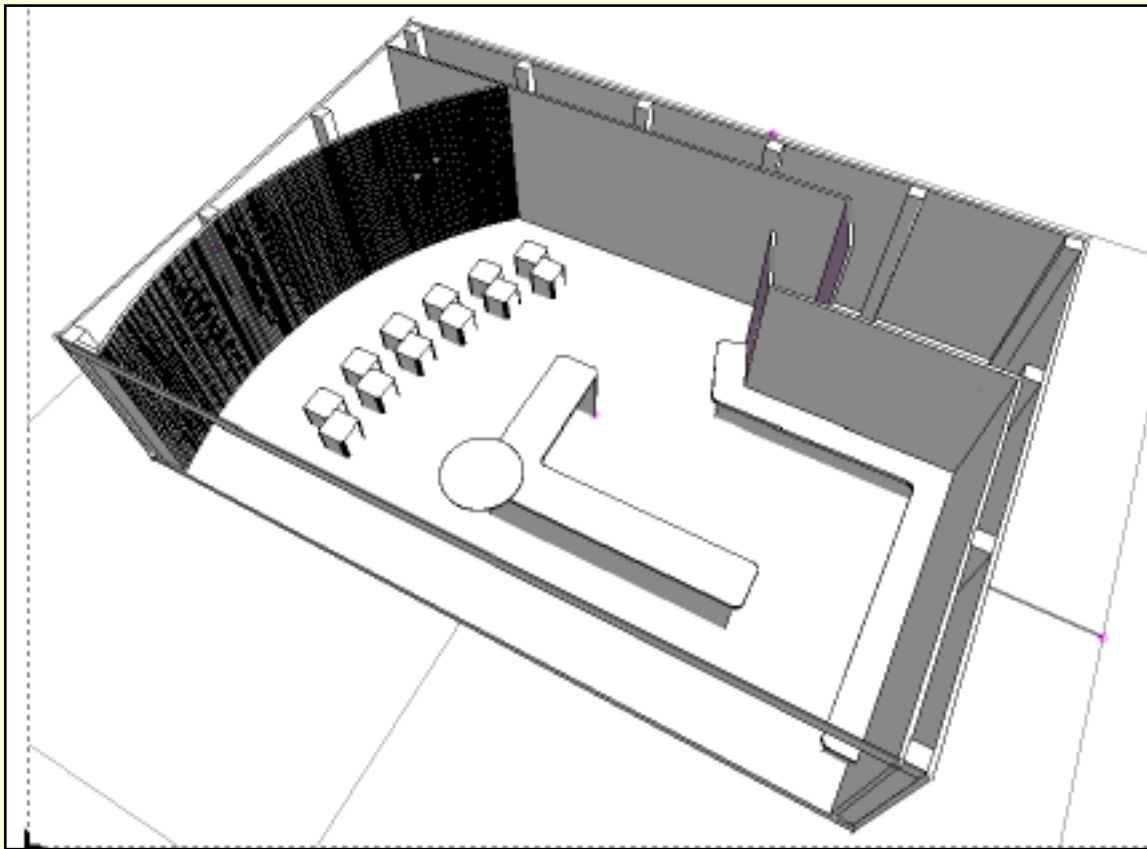
**3.** You can use CAD to create on screen **3D models** of your space/building, complete with walls, furniture, etc. This powerful feature enables you to present your design from different angles and, in the case of VectorWorks, add rendering, textures and create walkthrough animations.

You can also export your drawings to other programs with rendering capabilities such as RenderWorks™ (VectorWorks' companion), Artlantis™, Adobe Photoshop™ and Adobe Illustrator™ (Fig. 0.3.), 3D Studio Max™, etc. Please note that some of these programs (e.g. Artlantis™) require plugins to be installed within VectorWorks.



(Fig. 0.3.)

This book focuses on how to use VectorWorks to easily construct 3D ideas and view them from different angles in projection and perspective. To do this we will be working with a tutorial based on one of our past projects: the design of an exhibition stand for a magazine at a London show (Fig. 0.4.).



(Fig. 0.4.)

The tutorial introduces the concept of Architectural drawing with VectorWorks. You will learn how to set up a project as well as the basic architectural tools. The tutorial is designed to help you learn specific tools, drawing and presentation methods so that in time, you will be able to define your own drawing strategies.

Tools and menu commands are reviewed in more details in its parent publication, "A grounding in the drawing strategies and tools of VectorWorks".

These complementary publications are designed to provide you with enough knowledge and understanding of VectorWorks to give you the opportunity to adapt and apply what you have learnt to a myriad of other projects such as any other type of interior or furniture design and even entire buildings.