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MORTAZAVI DESIGN ACADEMY AUTHOR PRESS RELEASE APRIL 2025

DESIGNING JEWELRY WITH COMPUTER BOOK

WITH "MATRIX GOLD"

VOL.1

Written and published by Mohammad Mortazavi, this book is the only available step-by-step walkthrough for Gemvision Matrix Gold software providing the 3D jewelry designers with the most complete instructions of what they need to know while operating Matrix Gold...

Step-by-Step Instructions: The tutorials explain everything a jewelry 3D designer needs to know about the modeling techniques in the most detailed and professional way plus full step-by-step tutorial of Matrix Gold functions, toll, abilities, etc.

Fast and Simple Techniques: In addition to the details a 3D artist needs to know, there are several various simple techniques tutored in this book which will help the designers to model their jewels in the fastest and easiest possible ways.

Complete Text-Visual Tutorials and more: Every exercise is completely detailed in both text and image, providing the artists with useful information not only about the 3D modeling subjects, but also about standards they need to perform in their career and much more.

The instructions provided in this book are not limited to 3D modeling; but they also include various methods of Gem settings and tend to different hints you need to keep in mind while trying to design models of high quality and standard. Every exercise comes with detailed steps so even the designers with no experience can follow.

Everything you need to perform during your design progress is explained in details with visual samples of every step to make sure that the students are not missing anything.

The international standards of the measurements you must follow in your design are listed in charts and explained with tips and techniques of casting for better understanding.

The progress of designing every model from easiest to the most complicated ones are detailed in measurements you need to maintain for manufacturing.

There are several exercises of various ring, pendant, earring, etc. models so students can learn and practice modeling of different jewelry types and face their challenges.

Every exercise will teach you some new sets of commands and help you practice the previous ones so you can model more complicated projects in the future by combining the tools and techniques you learn along the way.

In Addition to all the modeling tutorials, a comprehensive instruction is provided for rendering with Cycles engine which is the latest engine in Matrix software.

Rendering tasks are completely explained in full details including material types, the tutorial for every setting and configurations, camera angle, resolution, etc. so you can have the most realistic and professional render of your project following these instructions.



Manufacturing Jewelry and Gem Setting
Introduction of different Gem Settings
Bead, Melee & Granite setting



Bead and prong setting is one of the most useful gem-setting methods for round gems, generally small and medium sized. In this method, the gems are restrained and held by tiny cylinders, in the future referred to as «Beads» or «Prongs».

There are two common ways to extract gems

Bead Setting:
The setter pulls the prongs out of the gold surface and bends them on the gems using special setting tools. The thickness of the gold under the gems in this method should be at least 1mm or between 60 and 70 percent of the gem's diameter so that the setter can make the prongs from the surface of the gold. To design this style, the designer only has to create the holes under the gem in the computer, and the rest of the work is done by the setter.

Ready-Made Prong:
The prongs are made during the design process and are bent on the gems after construction by the setter. One of the advantages of this method is that it speeds up the gem setting process and reduces the gold deficit. In this method, there is more delicacy and precision, and as a result, the quality of the final work is higher. This method is much more useful than the bead setting method today. In this case, the cross-sectional shape of gold can be in two ways:

Without walls:
In this case, a row of gems is placed on a narrow band of gold that the width of the band is exactly the size of the gem's diameter or slightly wider. The size of the band width can be considered as 0.05 to 0.10mm more than the size of the gem; this amount is removed during the manufacturing process.



15. To create a row of gems, you need to create a row of holes in the gold band. The holes should be of the same size as the gem's diameter. The holes should be spaced evenly along the band. The holes should be created in the gold band using a laser or a drill. The holes should be created in the gold band using a laser or a drill. The holes should be created in the gold band using a laser or a drill.

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Standard chart size of Prongs for natural gems

The table below is not intended to be used to help you design with prongs. It is only for reference. The table is not intended to be used to help you design with prongs. It is only for reference.

GEM SIZE (mm) (Diameter)	PRONG DIAMETER (mm)	PRONG HEIGHT (mm)
1.0 - 1.5	0.8 - 1.0	0.5 - 0.7
1.5 - 2.0	0.8 - 1.0	0.5 - 0.7
2.0 - 2.5	0.8 - 1.0	0.5 - 0.7
2.5 - 3.0	0.8 - 1.0	0.5 - 0.7
3.0 - 3.5	0.8 - 1.0	0.5 - 0.7
3.5 - 4.0	0.8 - 1.0	0.5 - 0.7
4.0 - 4.5	0.8 - 1.0	0.5 - 0.7
4.5 - 5.0	0.8 - 1.0	0.5 - 0.7
5.0 - 5.5	0.8 - 1.0	0.5 - 0.7
5.5 - 6.0	0.8 - 1.0	0.5 - 0.7

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Standard chart size of Prongs for Synthetic gems

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GEM SIZE (mm) (Diameter)	PRONG DIAMETER (mm)	PRONG HEIGHT (mm)
1.0 - 1.5	0.8 - 1.0	0.5 - 0.7
1.5 - 2.0	0.8 - 1.0	0.5 - 0.7
2.0 - 2.5	0.8 - 1.0	0.5 - 0.7
2.5 - 3.0	0.8 - 1.0	0.5 - 0.7
3.0 - 3.5	0.8 - 1.0	0.5 - 0.7
3.5 - 4.0	0.8 - 1.0	0.5 - 0.7
4.0 - 4.5	0.8 - 1.0	0.5 - 0.7
4.5 - 5.0	0.8 - 1.0	0.5 - 0.7
5.0 - 5.5	0.8 - 1.0	0.5 - 0.7
5.5 - 6.0	0.8 - 1.0	0.5 - 0.7

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About Mohammad Mortazavi

Award-winning jewelry designer, Instructor, and Author, S.Mohammad Mortazavi (also known as Saeed Mortazavi) started his career in jewelry industry in 2006.

In 2009, he won his first jewelry design award and since then he has won more than 12 jewelry design awards in the most prestigious international jewelry design awards in Hong Kong (IJDE), and A 'Design awards in Italy.

He is the Author of 4 jewelry design books of more than 1500 pages in total.

Saeed was a judging committee member in 7 jewelry design awards in Thailand, UAE, and Italy.

He established his Jewelry Design Academy in 2015 and has instructed more than 10000 students withing 15 years of his teaching experience.

He was a speaker and lecturer in first, second and third jewelry designer's forums in the Middle East in 2018, 2015, and 2019 in the UAE. His Contemporary, Bold, and Avant-guard designs have been covered in many Medias, TV channels, Magazines like Vo +- Solitaire Magazine, Jewelry Review, Trend Book 2025, and many more medias.



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