I didn't want to use the expected double cross for the Finnish bible.

Instead I chose a beautiful pyrite as a symbol of the single source of light from which all life originates.

I wanted the joy of seeing both sides of the pyrite.

Beforehand I had asked a goldsmith to set the pyrite. It had a "frame" of gold following it's outline and three "legs".(fig.1)

For the demonstration I chose a gold look-alike alloy and three "legs" only to keep the cost down.(fig.2)

- 1. attach 2 boards—combined they equal the thickness of the board on the back—with a few glue dots. (I prefere glue to P.V.A. because glue splits easily while P.V.A. rips the fibers of the board.)
- 2. trace the pyrite onto the upper board, add a little extra space for the leather turn-in.
- 3. fasten board with clamps to the table and use a saw frame to cut the penciled shape.
- 4. bevel upper board at the opening reaching ca 10mm onto it. (The beveling makes for a smoother transition because the pyrite itself is layered. This refined look is more pleasing to the eye.) sand.
- 5. separate boards.
- 6. trace "legs" on inner side of upper board, cut and remove adequate amount of fiber for an even, leveled fit for "legs".
- 7. attach upper board to the book block.
- 8. paste a narrow, thinly pared leather strip around the lower board's opening. The strip should reach 3-5mm on each side onto the board.
- 9. trace opening onto the cover leather, add ca 5mm towards the center for the turn-in.
- 10. cut.
- 11. pare around the opening at a width of about 15mm, down to zero at the hole.
- 12. cover spine and sides of the binding, turn the leather around the opening in and work it into the space for the "legs", place 2<sup>nd</sup> board exactly onto the 1<sup>st</sup>, give a quick nipp in the press, let dry under weight.
- 13. open front cover of the binding, place or glue "legs" of pyrite into corresponding position, glue 2<sup>nd</sup> board onto the 1<sup>st</sup> for a perfect fit. Insert a thin metal sheet between book block and cover board, press over night.
- 14. finish covering as usual.

## Agate

In the case of "Creation" I wanted light to be able to penetrate the agate. The back of the agate had to be free of any support.

To have the agate "float" I used 3 layers of board. (3 boards equal the board thickness at the binding's back.)

- 1. attach the 3 boards with glue dots so they will not slip.
- 2. trace the agate, reduce the outline by 3-5mm.
- 3. use saw frame to cut outline, sand.
- 4. separate boards.
- 5. trace 4-6mm around the middle board's opening, cut at this widened outline.
- 6. attach upper board to book block.
- 7. paste narrow strip of thinly pared leather around lower board's opening. (If you want a different color than the cover leather's on the edge of the upper board, paste the strip now.)
- 8. trace opening onto cover leather, add 5mm for the turn-in at the opening. (In the case of a different color strip, trace the exact shape of the opening)
- 9. cut.
- 10. pare at a width of ca 15mm down to zero..
- 11. cover spine and sides, work leather around the opening, dry.
- 12. glue 2nd board.
- 13. place agate in designated opening.
- 14. glue 3<sup>rd</sup> board with the leather strip around its opening.
- 15. finish covering.

(fig 4)

## Mother of Pearl

For E.A. Poe's "Tales of Mystery and Imagination" I chose to use abalone shell for it's property to reflect light when held at different angles in various colors.

In the case of abalone shell or other flat object, I am removing enough layers of fibers on the board to have the shell at the same level as the cover leather in the completed binding.

- 1. trace the shell onto the board, add enough to alow for the cover leather for a perfect fit.
- 2. cut or punch out the desired shape.
- 3. remove an appropriate amount of the board's fibers.
- 4. cover the binding, take care at the lower level parts to ensure that the leather adheres well.
- 5. finish the binding, the design, the flyleaves and polishing of the cover before using the shell, then procede.
- 6. roughen the leather at the lower lying surface.
- 7. use Epoxy on both surfaces.
- 8. press shell into it's "bed" using your fingers.

## **Precious Stones**

To be able to use small precious stones on a leather binding it is necessary to have them mounted. A goldsmith will make the setting, which ends in either one or two "legs". These "legs" are pushed through the cover-boards and bent at the exit point. The small surface of a precious stone has an area too small to give a long lashing hold when using Epoxy. Settings most often used are a "colar" or "claws". (fig 5 a, 5 b)

I prefer to have the surface of the stone as even leveled with the board's surface as possible. Therefore I remove an adequate layer of board to accommodate the set jewel.

- 1. cut or punch out the desired amount of board to fit the set stone on the leather covered book.
- 2. cover the book, make sure the leather adheres to all sides of the cut-outs.
- 3. make a hole at the point for the "leg" or "legs" in the board.
- 4. push the "leg" through and bend it at an angle of 90° at the exit point. (If necessary remove some fibers on the board to accommodate the leg ) Later the surface of the inner board between the turn ins and leather joint will be covered by Bristol board.

