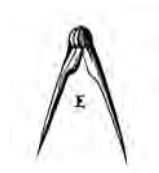


BY HOUND & EYE

A PLAIN & EASY GUIDE TO DESIGNING
FURNITURE WITH NO FURTHER TROUBLE

BY GEO. R. WALKER & JIM TOLPIN

ILLUSTRATED BY ANDREA LOVE



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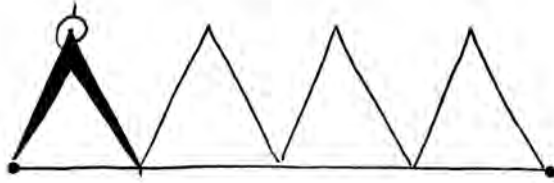
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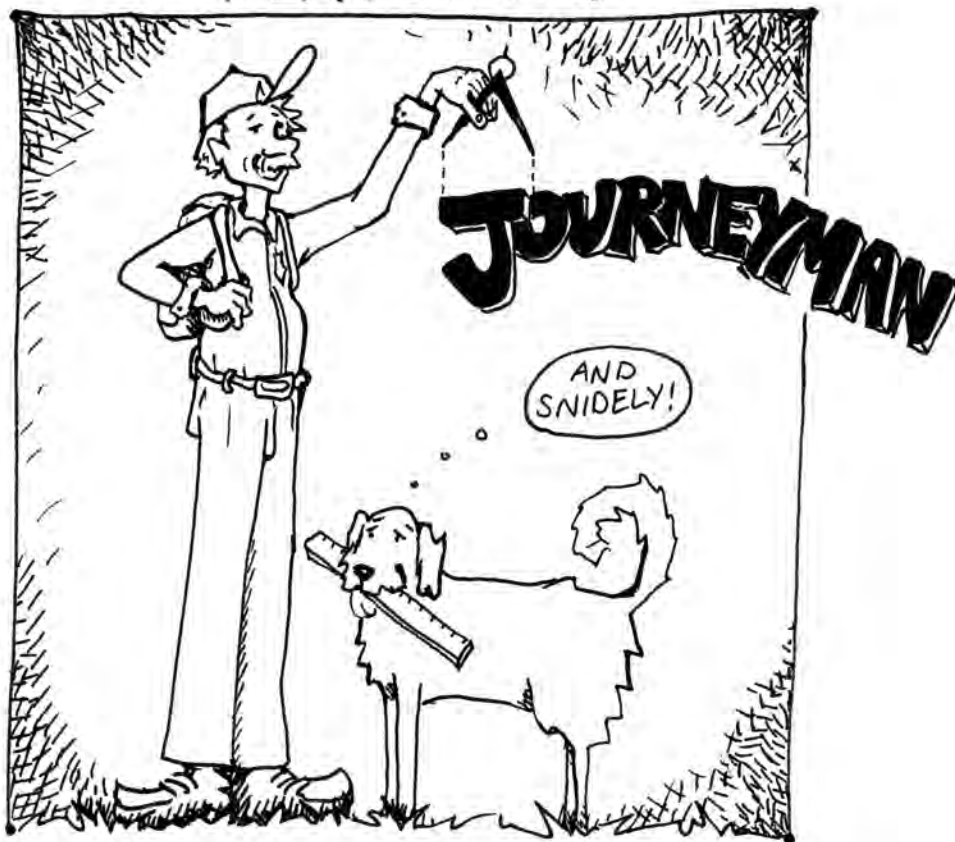


We dedicate this book first to the memory of the geometers of Antiquity who came up with this stuff, second to the artigiani of the Renaissance who refined it to perfection, and finally to the joiners and cabinetmakers of the 18th century who recognized its value and wove it into the fabric of their work.

BY WAY OF
AN INTRODUCTION

FROM POINTS TO PATTERNS

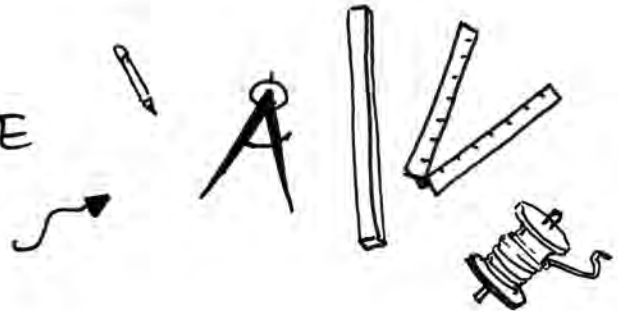
FEATURING





LET'S TAKE A JOURNEY -
AN ADVENTURE EXPLORING THE
TOOLS OF OUR IMAGINATION.

YOU'LL BE EQUIPPED
WITH A WORKING KNOWLEDGE
OF PLANE GEOMETRY AND
A SMALL BACKPACK OF
SIMPLE TOOLS.

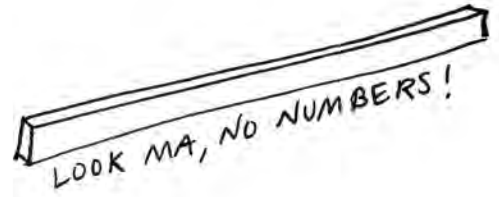


... THE SAME COLLECTION OF TOOLS AND KNOW-HOW
THAT MAKERS USED SINCE ANTIQUITY TO CREATE THE
WORLD'S FOREMOST ICONS OF STRUCTURAL INTEGRITY
AND TIMELESS BEAUTY.



SO, WHAT'S IN THE BACKPACK?

- A STRAIGHT EDGE



- A PAIR OF DIVIDERS



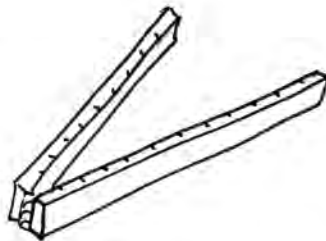
OPENS TO ABOUT ONE HANDSPAN.

- A COMPASS



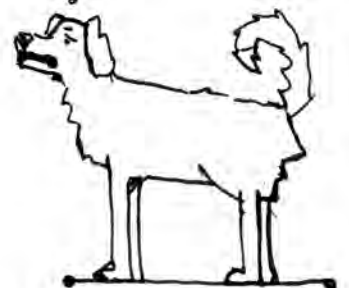
WITH REPLACEABLE PENCIL OR LEAD.

- A SECTOR



SHOP-MADE FROM TWO HINGED STICKS, OR USE A FOLDING RULER.

- STRING



... AND WHAT'S IN THE GEOMETRY?

A ONE-MINUTE INTRODUCTION

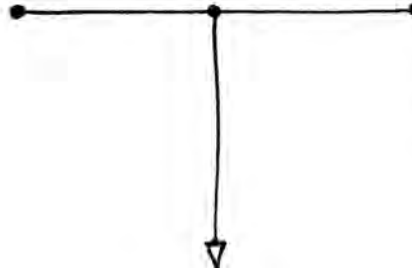
- A **POINT** HAS NO DIMENSION, BUT CAN SPRING OFF IN

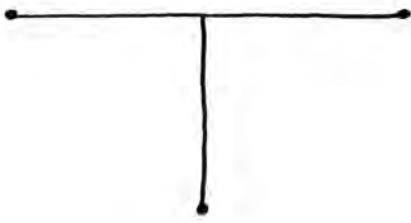
 A **DIRECTION**, WHICH CAN BE LIMITED TO A CERTAIN LENGTH BY

 AN **ENDPOINT** ALONG WHICH

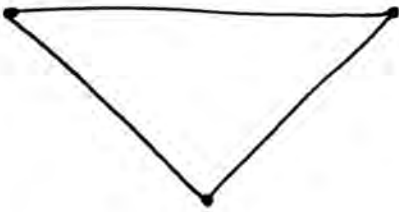
 AN **INTERVAL POINT** CAN CREATE

 A **PATTERN** (HERE 1:1), THE INTERVAL POINT CAN BECOME

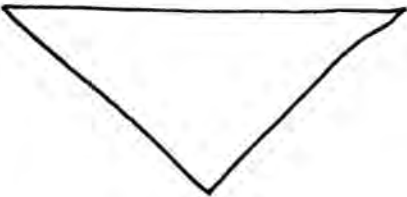
 A **TRANSITION POINT** IF IT SERVES TO SPRING OFF IN ANOTHER DIRECTION.



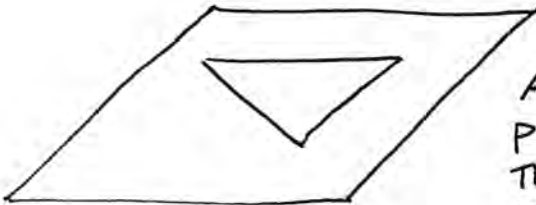
IF YOU PLACE AN END POINT
ON THIS NEW DIRECTION LINE



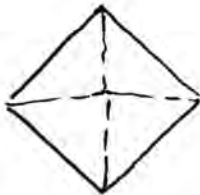
AND CONNECT THE END POINTS
TO ONE ANOTHER, YOU GET



A **SHAPE** WHICH HAS TWO
DIMENSIONS (LENGTH + WIDTH)
WHICH DEFINES

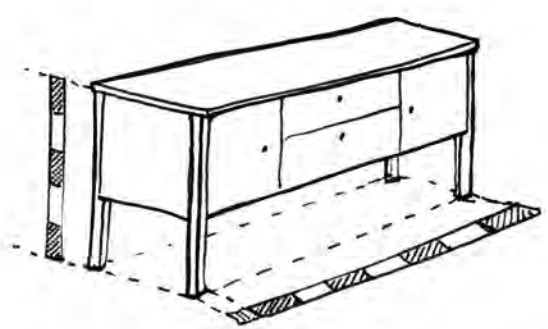
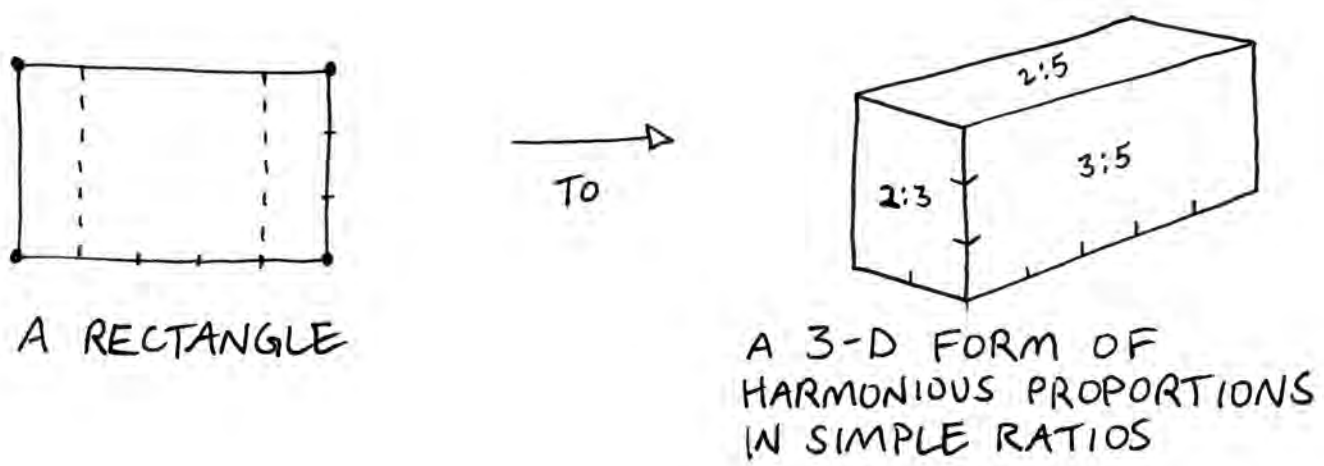
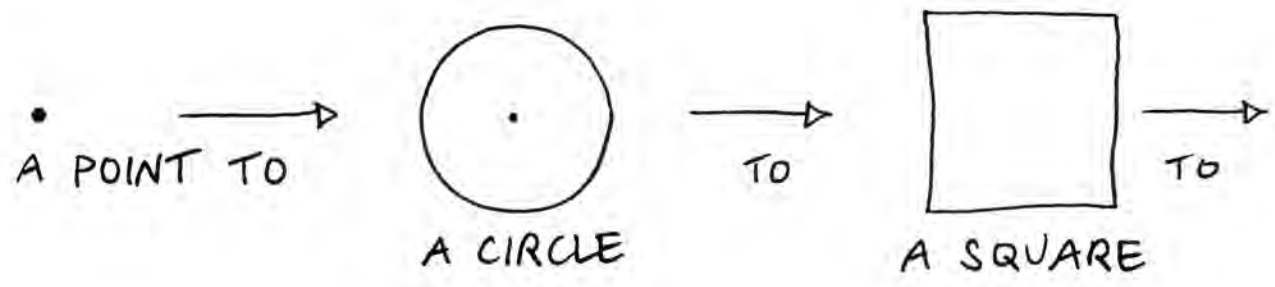


A **PLANE**, AND IF YOU
PLACE A POINT AWAY FROM
THE PLANE AND CONNECT ALL
THE POINTS, YOU GET



A THREE-DIMENSIONAL **SOLID**.

SO ARMED WITH THE SIMPLE TOOLS OF PRACTICAL GEOMETRY, YOU'LL TAP INTO YOUR INTUITIVE EYE TO MOVE FROM:



TO WHICH YOU'LL IMBUE A SYMPHONY OF FUNCTIONAL AND EYE-PLEASING PATTERNS.



THEN BUILD IT AND GIVE IT TO YOUR KID TO PUT IN THEIR DOLL HOUSE.



EASY! SINCE ALL THE DIMENSIONS RELATE INTERNALLY THROUGH WHOLE-NUMBER RATIOS, ALL YOU NEED TO DO TO CHANGE THE SCALE IS OPEN YOUR DIVIDERS TO A NEW SETTING (THE "MODULE") AND STEP IT OUT TO THE SAME RATIOS.

EVERY DESIGN WE WILL DEVELOP ON THIS JOURNEY IS SIMPLY A CONSTELLATION OF STRAIGHT, AND OCCASIONALLY CURVED, LINES. THE TRICK IS TO FIGURE OUT WHERE TO LOCATE THE POINTS TO WHICH THEY COME AND GO. AND THAT, FELLOW TRAVELERS, IS THE SUBJECT OF THE REST OF THIS BOOK.

SECTION III


CURVES



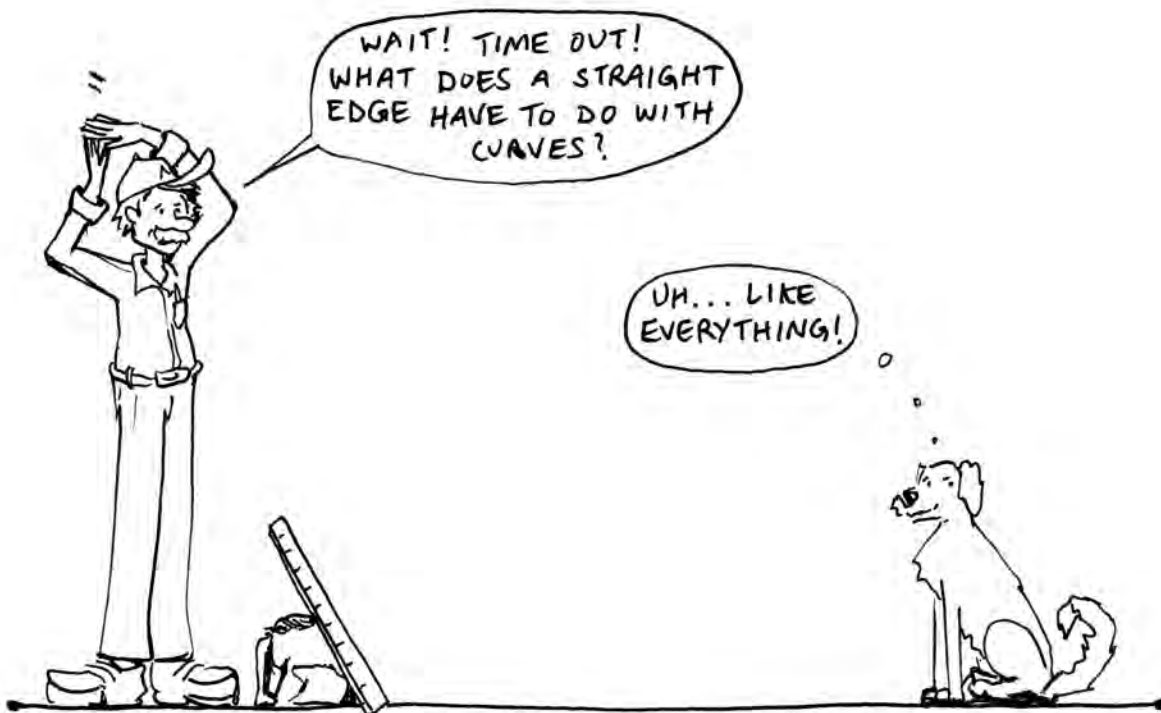
~ THE SWEETEST DISTANCE BETWEEN TWO POINTS ~

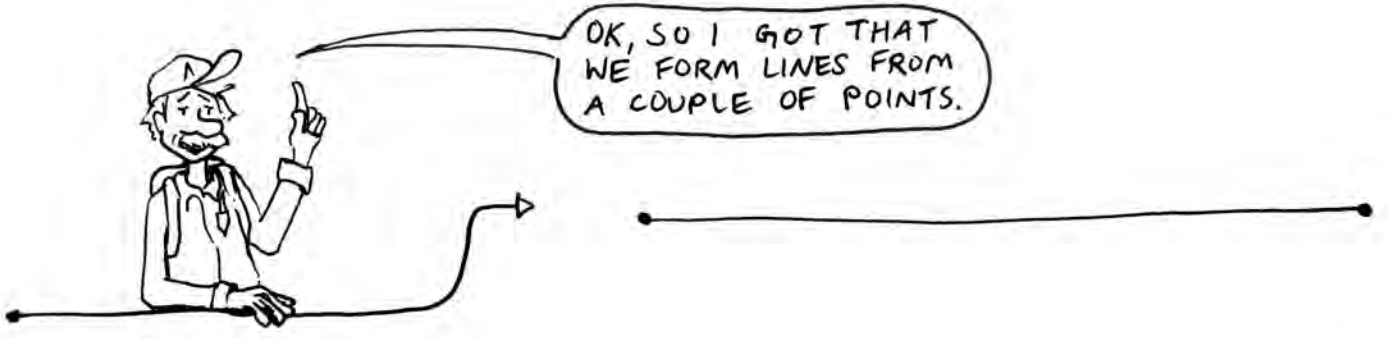


A STRAIGHT LINE IS THE SHORTEST
DISTANCE BETWEEN TWO POINTS, BUT
A CURVED LINE BRISTLES WITH MOTION,
ENERGY AND LIFE.

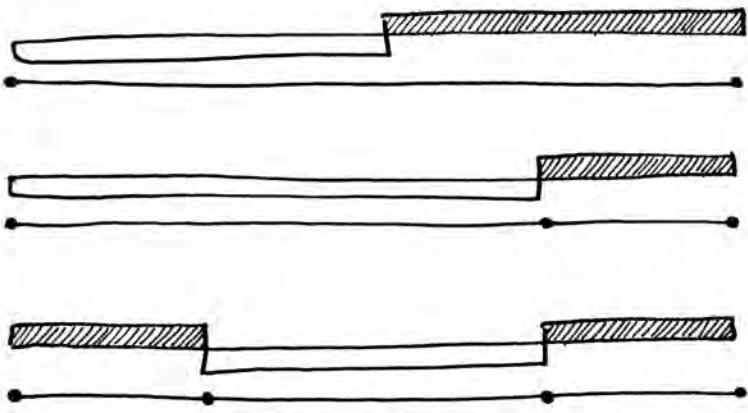


SO TO BEGIN EXPLORING CURVES, PULL
OUT YOUR STRAIGHT EDGE FROM YOUR
BACKPACK.

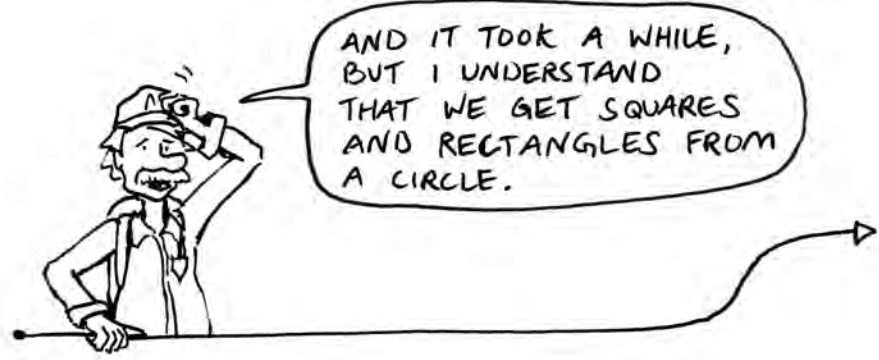
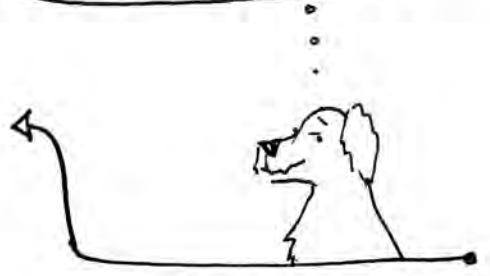




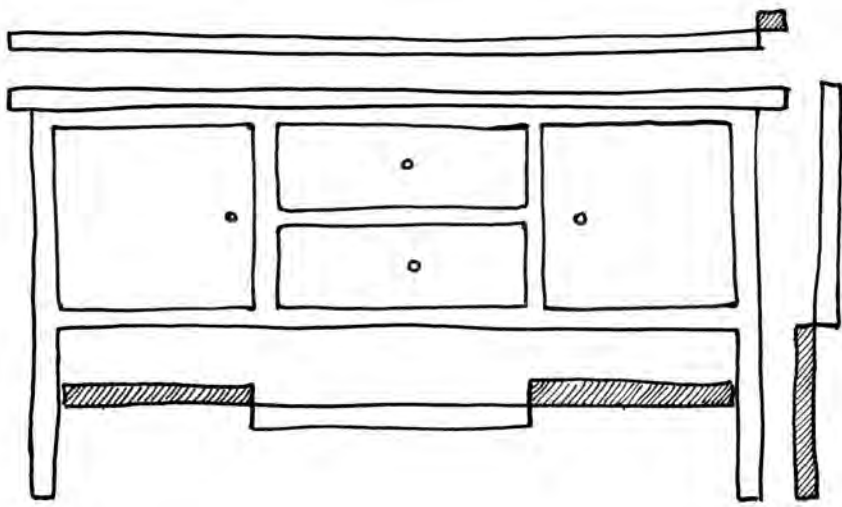
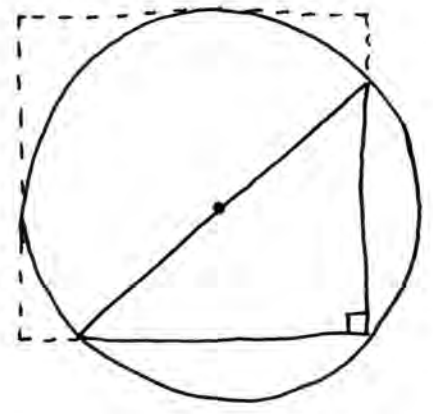
OK, SO I GOT THAT WE FORM LINES FROM A COUPLE OF POINTS.



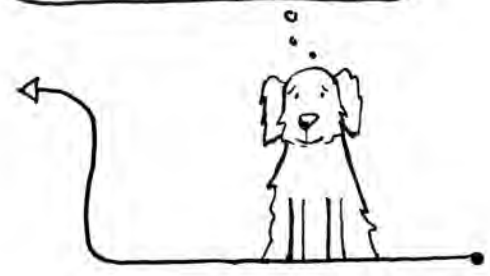
WHICH WE ORGANIZE INTO PATTERNS USING SIMPLE PROPORTIONS.



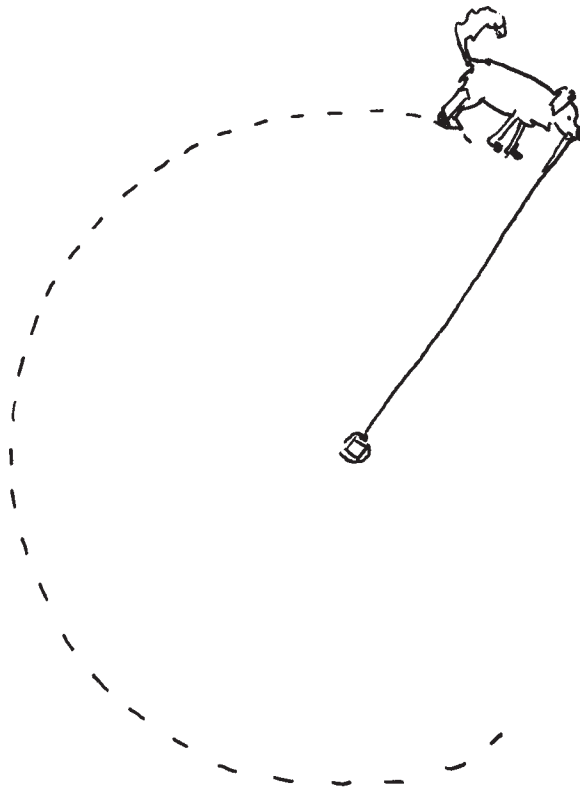
AND IT TOOK A WHILE, BUT I UNDERSTAND THAT WE GET SQUARES AND RECTANGLES FROM A CIRCLE.



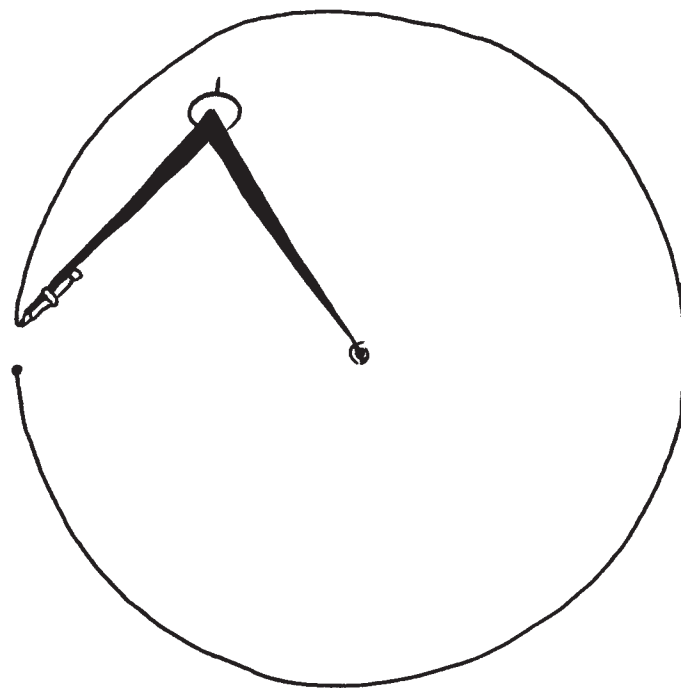
WHICH WE ALSO ORGANIZE INTO PATTERNS USING SIMPLE PROPORTIONS.

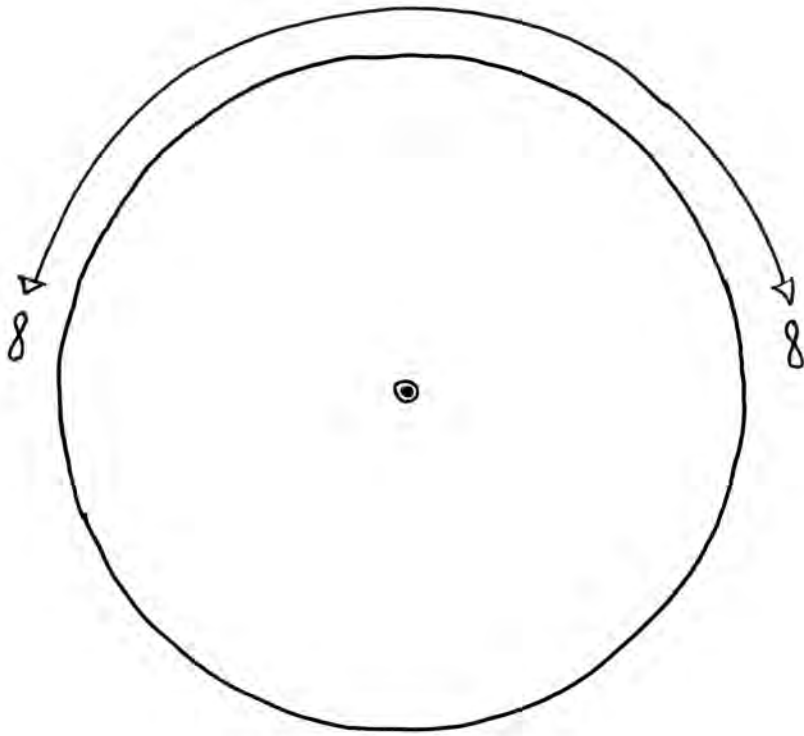


REMEMBER HOW SNIDELY
FORMED A CIRCLE BY
ANCHORING A LINE TO
A STAKE AND WALKING
AROUND IT?

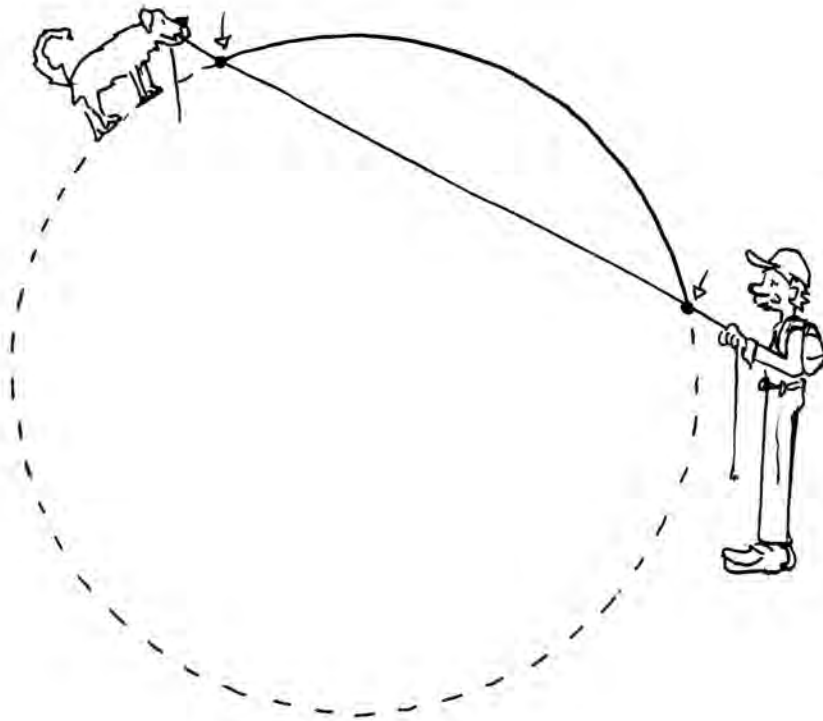


THE STAKE MARKS
OUR FOCAL POINT TO
DRAW WITH A COMPASS.





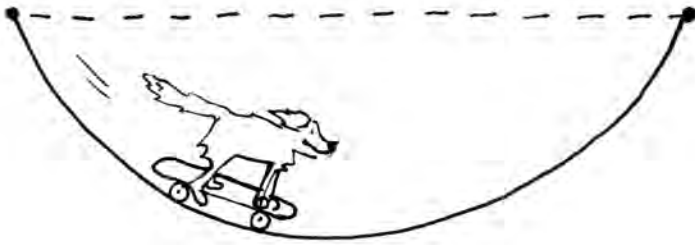
BOTH OUR STRAIGHT
LINE AND CIRCLE
HAVE SOMETHING IN
COMMON. WITHOUT
TRANSITION POINTS
TO MARK BEGINNINGS
AND ENDINGS, THEY
EXTEND ENDLESSLY.



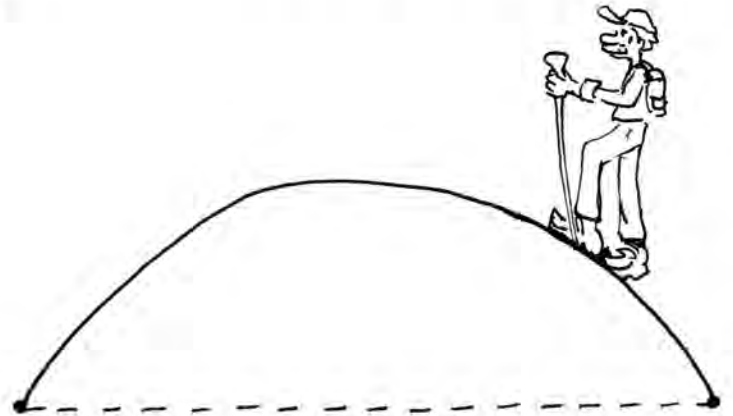
BUT WHEN WE STRIKE
A LINE ACROSS OUR
CIRCLE, WE FIND
SOMETHING QUITE
USEFUL TO US, AN ARC.

YET ARCS ARE UNIQUELY DIFFERENT FROM STRAIGHT LINES.

ARCS CAN BE **CONCAVE...**



... OR CONVEX.



ARCS CAN BE...

... SLOW AND GRADUAL...



... OR FAST AND STEEP.





THESE UNIQUE DIFFERENCES COMPARED TO STRAIGHT LINES OPEN UP COUNTLESS POSSIBILITIES AND COMBINATIONS.