# CHAPTER 5  DESIGN ETUDE

> IT'S TIME TO DO SOME *THINKING* BY *MAKING!*

## ● PART 1: DECONSTRUCT

OBSERVE AND **DECONSTRUCT** AN INSTRUMENT INTO ITS INPUT, OUTPUT, AND MAPPING. DO THIS FOR BOTH A TRADITIONAL ACOUSTIC INSTRUMENT, AS WELL AS A COMPUTER-MEDIATED ONE. FOR THE LATTER, USE OUR **BROAD DEFINITION** OF A MUSICAL INSTRUMENT "THAT WHICH ALLOWS FOR INTENTIONED EXPRESSION OF SOUND." THIS INCLUDES EVERYTHING FROM SYNTHESIZERS TO CUSTOMER CONTROLLERS TO LIVE CODING AS INSTRUMENTS.

## ● PART 2: SKETCH

SKETCH OUT THE DESIGN FOR A **NEW INTERFACE** FOR **MUSICAL EXPRESSION** USING THE PRINCIPLES FROM THIS CHAPTER AS REFERENCES, BOTH TO FOLLOW AND FOR DEPARTURE. **WHO** IS IT FOR? EVERYONE? EXPERT? YOURSELF? FOR EXAMPLE, APPLY PERRY'S PRINCIPLES OF "DESIGN A PIECE, NOT AN INSTRUMENT" TO ENVISION THE **OUTPUT** (E.G., A MUSICAL STATEMENT) AND WORK BACKWARDS TO TAILOR AN INSTRUMENT SPECIFICALLY TO IT. WHAT DOES IT SOUND LIKE? HOW DOES IT PLAY? **OR**... APPLY THE "RE-MUTUALIZE" ETHOS  TO CREATE A PHYSICAL MUSICAL ARTIFACT.

## ● PART 3: PROTOTYPE

**PROTOTYPE** THE INSTRUMENT, USING THE DESIGN CONSTRAINT OF LIMITING YOURSELF TO WHAT IS AVAILABLE TO YOU. THIS MAY REQUIRE YOU TO BACKTRACK AND RETHINK THE FUNDAMENTAL VISION OF YOUR INSTRUMENT (WHICH IS **OKAY**, AND OFTEN ESSENTIAL). DOES IT TAKE ADVANTAGE OF WHATEVER TECHNOLOGY YOU INTEND TO USE? HOW WOULD YOU MAP IT? HOW WOULD YOU CREATE A SENSE OF **EMBODIED** INTERACTION? HOW WOULD YOU MAKE THE INTERACTION **SATISFYING** AND **EXPRESSIVE** TO USE?

## ● PART 4: DEPLOY

DESIGN A **PERFORMANCE** WITH IT. IT DOES NOT HAVE TO BE COMPLEX -- JUST HAS TO DO THE INSTRUMENT JUSTICE! PERFORM IT LIVE FOR SOMEONE (E.G., YOUR FRIENDS, CO-WORKERS, STRANGERS, OR PETS -- ANY AUDIENCE) OR RECORD A VIDEO AND POST IT. PUT YOURSELF OUT THERE. THINK ABOUT THE WAYS IN WHICH IT WILL BE **EXPERIENCED** AND DESIGN AROUND THAT CONTEXT AND THE AESTHETICS OF THAT ENCOUNTER. WHAT ARE YOUR **METRICS** FOR **SUCCESS** FOR THE DESIGN OF THE INSTRUMENT AND THE PERFORMANCE?