

THE *PRELUDE* FROM...

# ARTFUL DESIGN

TECHNOLOGY IN SEARCH OF THE SUBLIME



GE WANG

<https://artful.design/>



WHAT WE MAKE, MAKES US.

WE ARE HERE, AND THE TIME IS NOW...



THERE IS AN ART TO DESIGN.

I'M A PROFESSOR AT STANFORD UNIVERSITY, IN THE CENTER FOR COMPUTER RESEARCH IN MUSIC AND ACOUSTICS, OR CCRMA.\*

\*PRONOUNCED "KARMA"

I WORK WITH TECHNOLOGY TO CONNECT PEOPLE AND MUSICAL EXPRESSION...

...AND

USE DESIGN TO BIND TOGETHER TECHNOLOGY AND ART, ENGINEERING AND THE HUMANITIES.



BLEEP

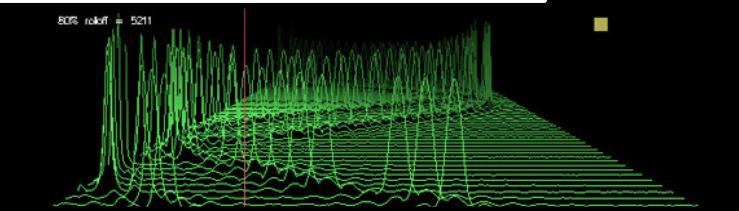
Bloop

I DESIGN BY WRITING CODE.

```
// our radius  
.99999 => float R;  
// our delay order  
500 => float L;  
// set delay  
L::samp => delay.delay;  
// set dissipation factor  
Math.pow( R, L ) => delay.gain;  
// place zero  
-1 => lowpass.zero;
```



I CREATE NEW TOOLS -- LIKE CHUCK, A MUSIC PROGRAMMING LANGUAGE...



```
// fire excitation  
1 => imp.gain;  
// for one delay round  
L::samp => now;  
// cease fire  

```



...TO SYNTHESIZE NEW SOUNDS AND EXPERIMENT WITH MUSICAL INTERACTIONS.



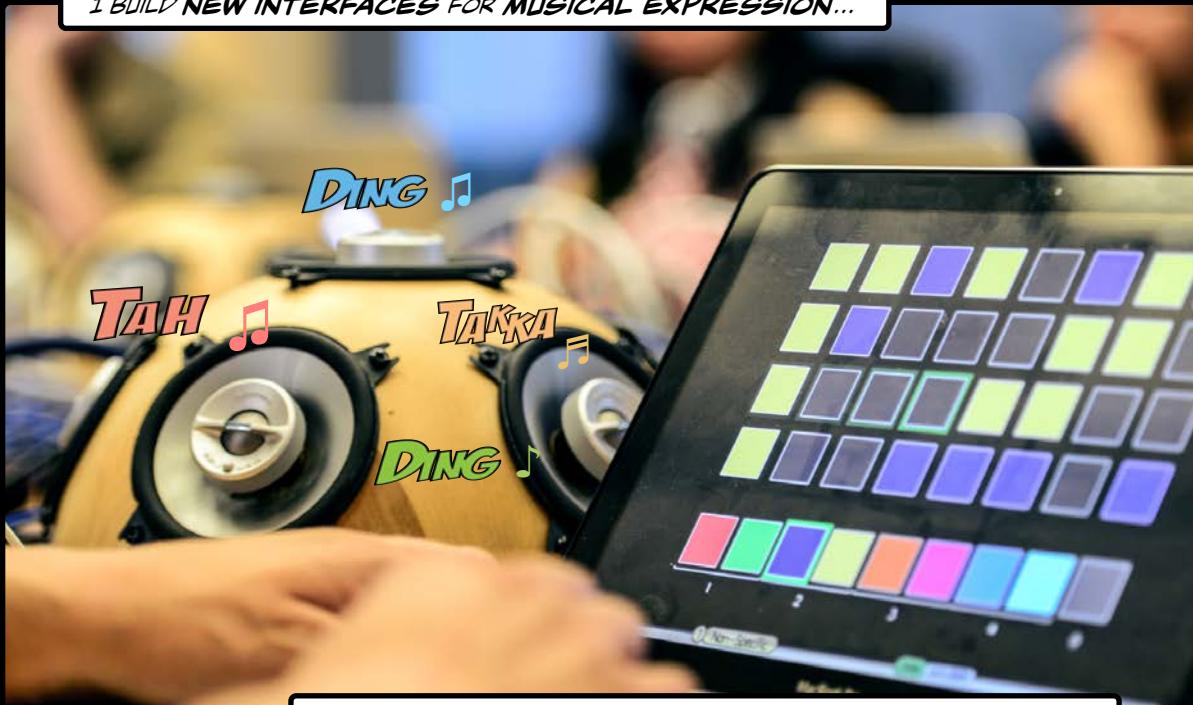
I CREATE TOOLS, TOYS, INSTRUMENTS, AND EXPERIENCES.



I DESIGN SOUND AND GRAPHICS IN TANDEM.



I BUILD NEW INTERFACES FOR MUSICAL EXPRESSION...



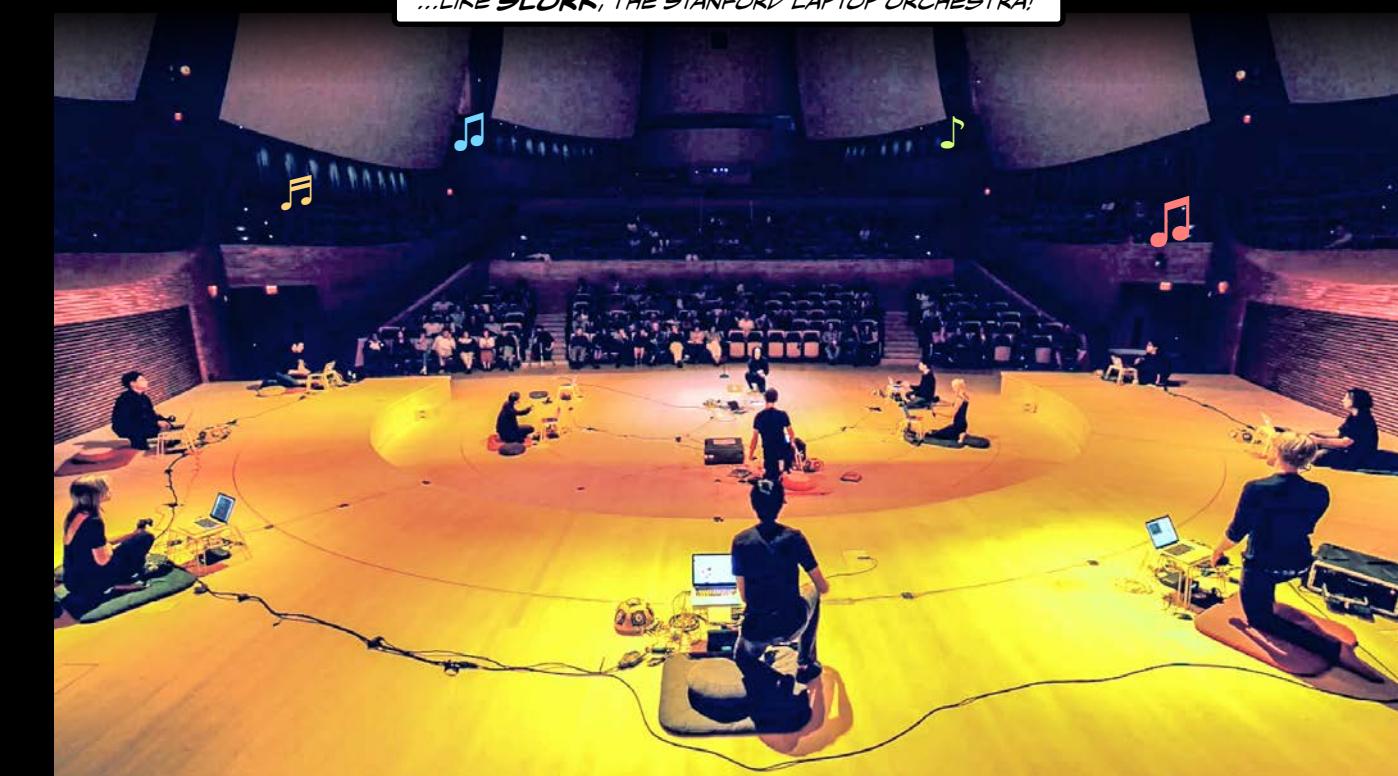
...COMBINING SOUND DESIGN AND INTERACTION DESIGN.



WE USE THESE INSTRUMENTS TO CRAFT PERFORMANCES FOR LAPTOP ENSEMBLES...



...LIKE SLORK, THE STANFORD LAPTOP ORCHESTRA!



I DESIGN APPS TO TRANSFORM MOBILE DEVICES...



...INTO EXPRESSIVE MUSICAL INSTRUMENTS...



...TO BE PLAYED BY ANYONE...



...NOVICES AND PROS.

Hot N Cold - Katy Perry,  
Smule Ocarina, Guitar, Vocal

IN 2008, I CO-FOUNDED A MOBILE MUSIC STARTUP, CALLED SMULE...



...AND DESIGNED OCARINA FOR THE iPHONE.



HOW TO PLAY:

HOLD THE PHONE AS YOU MIGHT A SANDWICH.  
BLOW INTO THE MICROPHONE TO PLAY;  
USE MULTITOUCH TO CONTROL PITCH;  
TILT THE PHONE DOWN TO ADD VIBRATO.



I SERVED AS CHIEF CREATIVE  
OFFICER AND CTO DURING OUR EARLY  
YEARS, UNTIL I STEPPED DOWN IN 2013.

WITHIN THAT TIME, I ALSO DESIGNED  
OCARINA 2, MAGIC PIANO, AND  
OTHER MUSIC-MAKING ARTIFACTS.

THESE GAMES, TOYS, INSTRUMENTS HAVE  
REACHED MORE THAN 200 MILLION USERS.

THERE IS ANOTHER DIMENSION TO ARTFUL DESIGN: A *SOCIAL FABRIC* THAT CONNECTS US IN NEW, EXPRESSIVE WAYS.



IN OCARINA, YOU CAN LISTEN TO OTHER PEOPLE PLAYING FROM ALL CORNERS OF THE WORLD.



IN LOUISIANA, SOMEONE PLAYS THE THEME FROM LEGEND OF ZELDA...



...OR, FROM HAWAII, "SILENT NIGHT."



"AMAZING GRACE"  
IS A GLOBAL FAVORITE.

LISTENING TO THE WORLD CAN MAKE YOU FEEL BOTH ALONE AND CONNECTED AT THE SAME TIME.

THIS IS DESIGN AS EXPERIENCE,  
VISCERAL AND HUMAN...

...A SMALL FEELING THAT THERE IS *SOMEONE, SOMEWHERE OUT THERE...* AND THAT WE ARE MORE *ALIKE* THAN DIFFERENT.

THIS KIND OF DESIGN WOULD NOT BE POSSIBLE WITHOUT *TECHNOLOGY*...

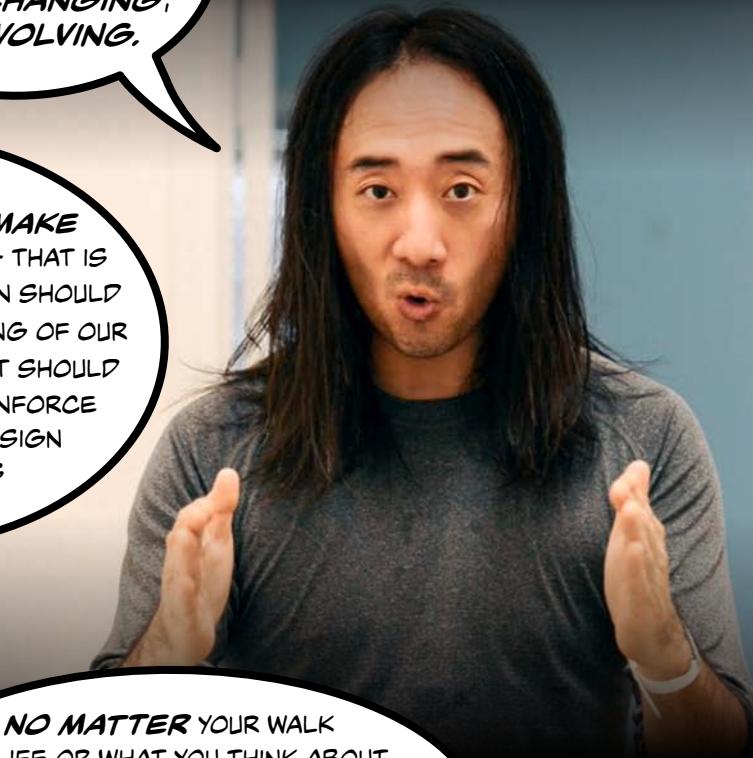
...YET HOPEFULLY THE USER NEVER *NOTICES* THE TECHNOLOGY.

A REALM OF...

REFLECTING SOMETHING OF OUR NATURE, TECHNOLOGY PUSHES FORWARD, ALWAYS CHANGING, EVER EVOLVING.

IT IS **ARTFUL DESIGN** -- HOW WE MAKE USE OF TECHNOLOGY -- THAT IS OUR **CONSTANT**. DESIGN SHOULD **UNDERSTAND** SOMETHING OF OUR NEEDS, DREAMS, FEARS. IT SHOULD **ENRICH** OUR LIVES, REINFORCE OUR **HUMANITY**. DESIGN SHOULD MAKE US **FEEL**.

NO MATTER YOUR WALK OF LIFE OR WHAT YOU THINK ABOUT **TECHNOLOGY OR ART**, AND NO MATTER OUR DIFFERENCES, I **INVITE** YOU TO VENTURE INTO A REALM WHERE **TECHNOLOGY MEETS THE INTANGIBLE**...



# ARTFUL DESIGN

TECHNOLOGY IN SEARCH OF THE SUBLIME



written and designed by

**GE WANG**

STANFORD UNIVERSITY PRESS

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## OF CONTENTS

A ROADMAP FOR OUR ADVENTURE AHEAD!

### PRELUDE



### CHAPTER 1 ..... 18

#### DESIGN IS

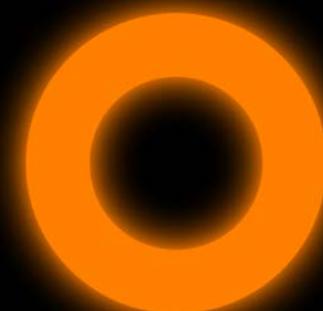
WORKING DEFINITION AND THE ABIDING ELEMENTS OF DESIGN AS A HUMAN INSTITUTION



### CHAPTER 2 ..... 56

#### DESIGNING EXPRESSIVE TOYS

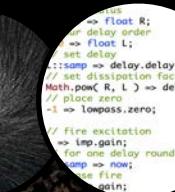
CONNECTING PEOPLE TO MUSICAL EXPRESSION USING TECHNOLOGY



### CHAPTER 3 ..... 104

#### VISUAL DESIGN

PRINCIPLES OF DESIGNING INTERACTIVE GRAPHICS



### CHAPTER 4 ..... 160

#### PROGRAMMABILITY & SOUND DESIGN

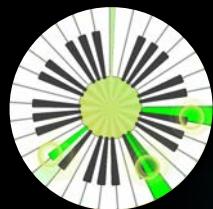
ART OF PROGRAMMING AND THE DESIGN OF MUSICAL SOUNDS



**CHAPTER 5 ..... 206**  
**INTERFACE DESIGN**  
THE MEMBRANE OF INTERACTION  
BETWEEN HUMANS AND TECHNOLOGY



**CHAPTER 6 ..... 306**  
**GAME DESIGN**  
DESIGNING FOR PLAY AND GAMIFICATION



**CHAPTER 8 ..... 398**  
**MANIFESTO**  
A SEARCH FOR DESIGN'S NATURE, PURPOSE, AND  
MEANING IN THE CRUCIBLE OF OUR EVER MORE  
TECHNOLOGICAL WORLD -- A PHILOSOPHY  
OF ARTFUL DESIGN



**CODA ..... 454**  
**IN SEARCH OF THE SUBLIME**

**LIST OF PRINCIPLES 464**  
**ACKNOWLEDGMENTS 474 IMAGE CREDITS 477**  
**ANNOTATED BIBLIOGRAPHY 479**

## MANIFESTO

In our age of rapidly evolving technology and unyielding human restlessness and discord, design ought to be more than simply functional; it should be expressive, socially meaningful, and humanistic. Design should transcend the purely technological, encompass the human, and strive for the sublime.

Sublime design presents itself, first and last, as a useful thing, but nestled within that window of interaction lies the novel articulation of a thought, an idea, a reflection—an invisible truth that speaks to us, intimate yet universal, purposeful without necessity of purpose, that leaves us playful, understood, elevated. It is a transformation so subtle that it escapes our conscious grasp but that once experienced—like music—we would never want to be without again.

Design should be artful.

<https://artful.design/>