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Homework

We've looked at a lot of code during our first two classes together. Next week we'll give more focus to graphic design— touring its history, meeting some standout characters, and looking more closely at grids and typography. For next class you will complete the following three assignments:

1. Hackers and painters

Read Paul Graham's essay [Hackers and Painters \(2003\)](#). It's full of gems like "A programming language is for thinking of programs, not for expressing programs you've already thought of." Paul's investigation of what it means to be a maker whose medium is code should resonate with you as an ITP student. If you find his essay intriguing you may also enjoy the book that it later evolved into, [Hackers and Painters \(2004\)](#).

2. Function, the ultimate

Watch Douglas Crockford's lecture [Act III: Function the Ultimate](#). Again, it's an hour and a quarter so plan accordingly; break it up into chunks if necessary. If possible, watch it with classmates as a group—informal discussion will help you better digest and retain Crockford's valuable insights. This is the last Crockford lecture I'll assign for class, but I do also highly recommend [Volume One: The Early Years](#) which is a wonderful review of programming history that begins with weaving looms and ends with JavaScript.

3. Saul Bass—The Man with the Golden Arm

Let's check in with Saul Bass again. This time watch his opening credits for the movie [The Man with the Golden Arm](#). Notice how he's limited his palette to only two colors, white abstract shapes on a black background. (Sound familiar?)

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And also watch this quick interview which shares some insight from the man himself. (The interview is from several years after the film was made.)

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4. Square Animations

Last week's design assignment required that you create eight posters, themed according to four pairs of opposite qualities: 1. Fortunate, 2. unfortunate, 3. robust, 4. fragile, 5. included, 6. excluded, 7. order, 8. chaos. This week you will pick your two favorite pairs, (for example robust/fragile and order/chaos), and for each of these two pairs create one minute animations using Paper.js. Start with one quality and over the course of 60 seconds transition into its opposite. (So how will you time sixty seconds worth of frames?) Your background must be black and your foreground squares must be white, but opacity, rotation, and scale on the squares are up to you. (But no cheating. Just because it will

be possible to have gray on screen doesn't mean you're allowed to paint using gray.) You may stretch your squares into rectangles, rhombi, trapezoids, and so on. But you're allowed only four squares per animation. (Perhaps a look at Paper's **Rounded Rectangles** example is in order?)

It's ok to alter your design direction. Last week you worked with paper. This week you're working with *Paper*. In general it's ok to borrow ideas from your classmates if you like those ideas better, though only you can judge if the context and environment makes that suitable. But you had better credit them. (If you don't give credit to people you'll quickly gain a bad reputation in your community.) And you'd better find a way to make the idea yours, otherwise it's just plain copying.

One last note. If you're stuck, think of your four white squares as characters in a short film. Through stretching, bouncing, sulking, flying, shuffling, flickering, and so on you can give each square its own personality. What's that square feeling? How can you show the audience that? Anything can have a personality, even (famously) a standard desk lamp.

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You must complete this assignment for next *Thursday*, 24 hours before our class. This will allow me to look over your work before class so I can give you feedback right away. I may elect to share a few of your pieces with the whole class. **Email** me a ZIP of your completed assignment, or send me a URL where I can view it. And please do not hesitate to **email** me at anytime between now and our next class with feedback or questions.

