

final presentation

jo gravelle

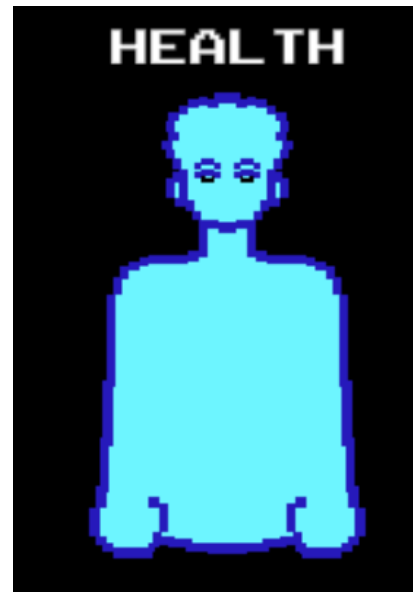
MAGD 487

project refresher

- create 3D modeled characters for a hypothetical 3D remake of a previous game project
 - low-poly models, PS1 inspired
 - fully textured
- stretch goals:
 - at least 2 fully-modeled characters, textured
 - each character textured in 2 different ways for style exploration
 - PS1 inspired, low-res textures and neon, arcade-like textures
 - basic rigging of models, potential basic animation work

step 1: redesigning

- redesigned the character in relation to a modified setting for the hypothetical remake of the game
 - notes on the original sketch reflect these tweaks, though they're not important to the actual process of modeling the character
- the character is supposed to be brainwashed, manipulated by a false-god figure into doing it's bidding.
 - i tried reflecting this in the characters vacant expression and poor-fitting clothes.
 - i wish i emphasized the detail of the poor-fitting clothes more to sell this better in the final design.

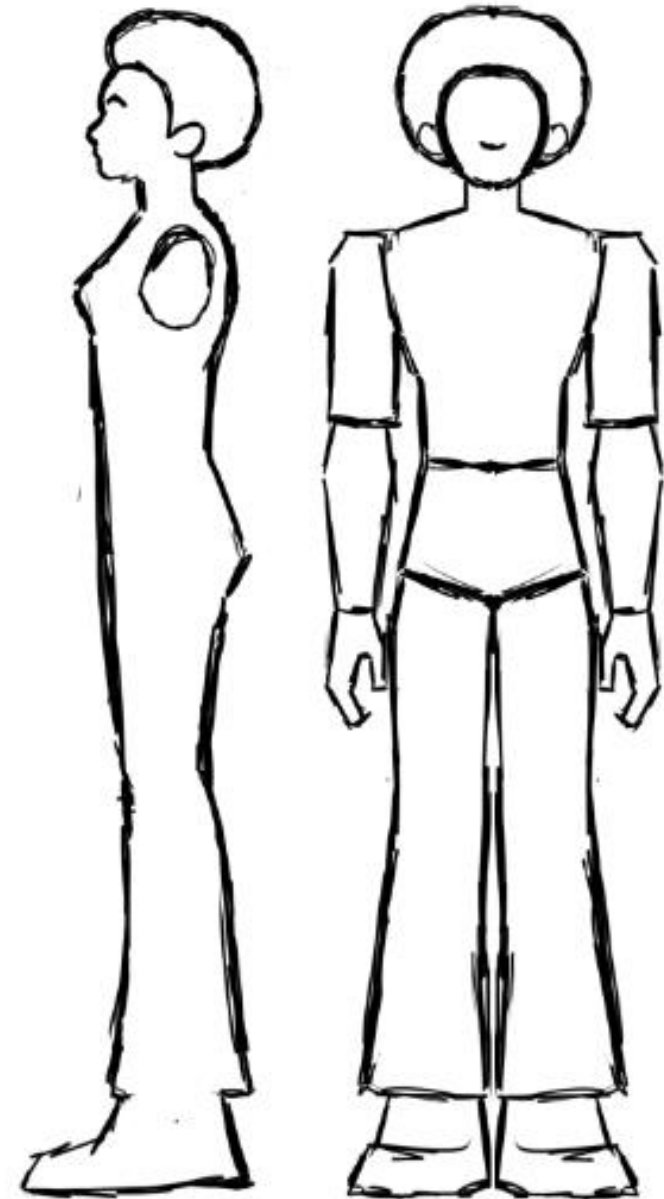


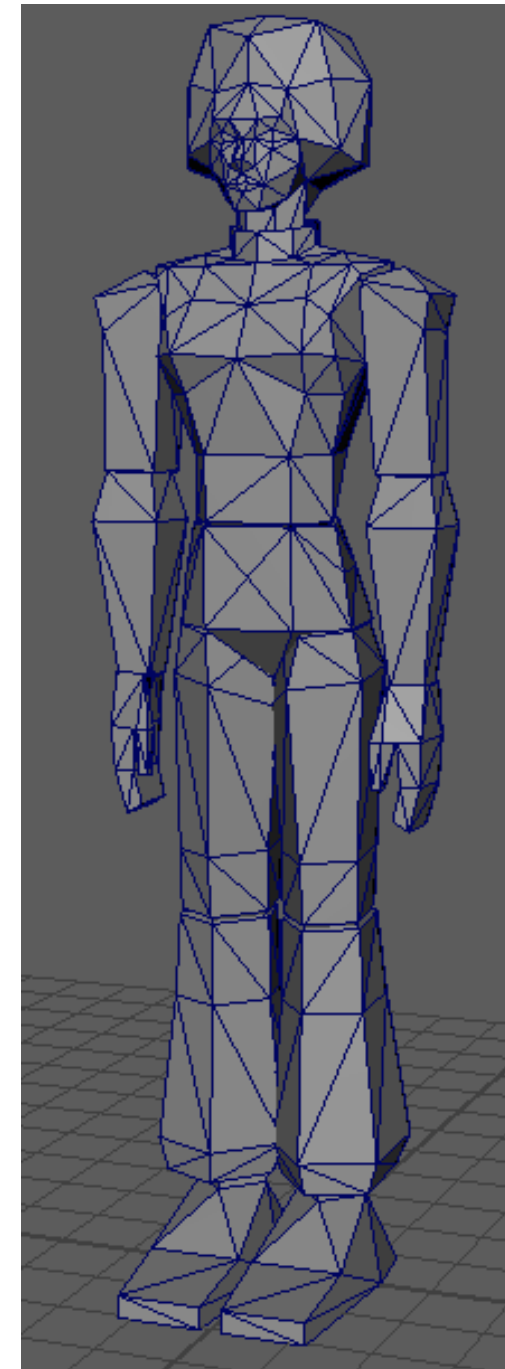
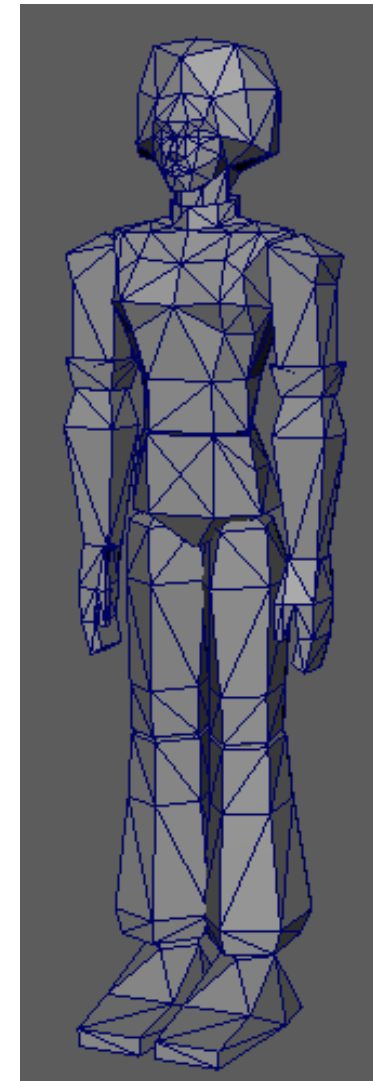
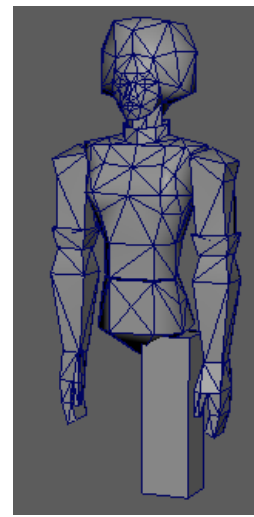
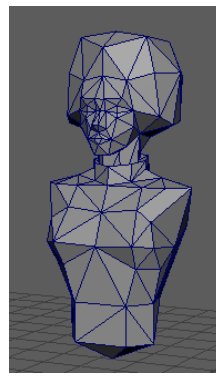
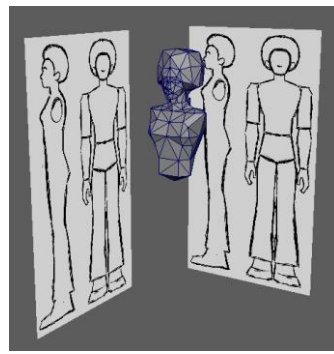
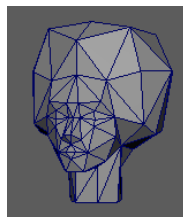
- PROTAG:
- BAGGY JEANS
 - DIRTY SHOES
 - POOR-FITTING BUTTON-UP
 - EVIL EYE ELEMENTS?
 - DUTANT LOOK
 - AFRO
 - "CHEAP" PASTOR LOOK



step 2: turnaround for modeling

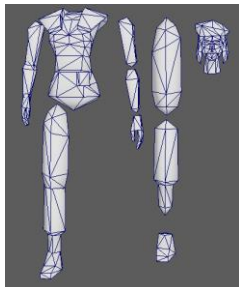
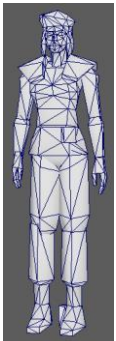
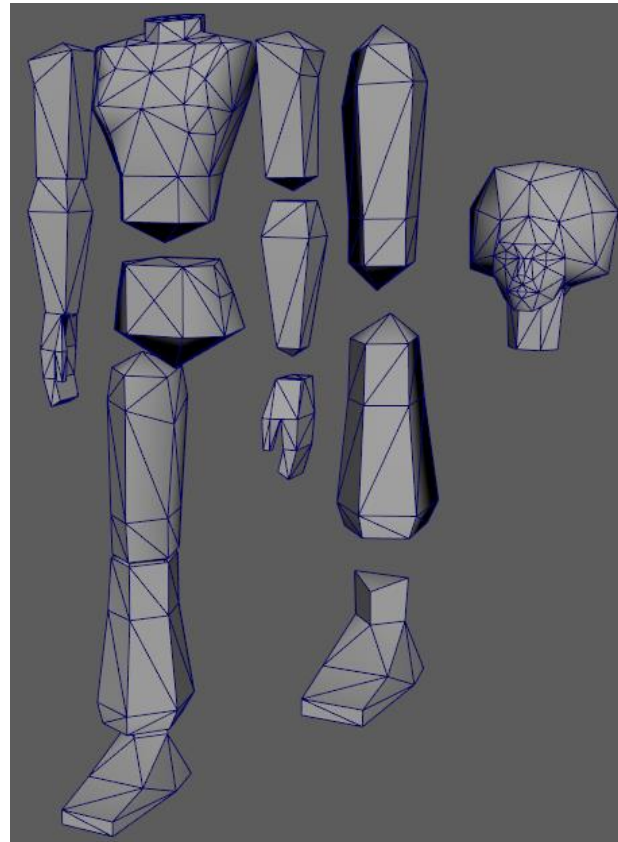
- very, very basic turnaround
- very low-detail, this was mainly only for ensuring proportions going into modeling
 - if i was working in a higher poly/more detailed style, i would have polished this turnaround a lot more.
- i referenced ps1 models while developing this turnaround to see how they generally tended to segment/abstract the human body





step 3: modeling

- each segment generally started as a primitive shape i then scaled and started cutting into tris as i sculpted to match my turnaround
 - i worked exclusively with tris to replicate ps1 models and their topology
- i referenced the original ps1 Jill Valentine model from Resident Evil heavily while modeling
 - i wanted to study how they went about laying out topology for certain features
 - i did end up simplifying features to avoid redundant/weird topology (imo)



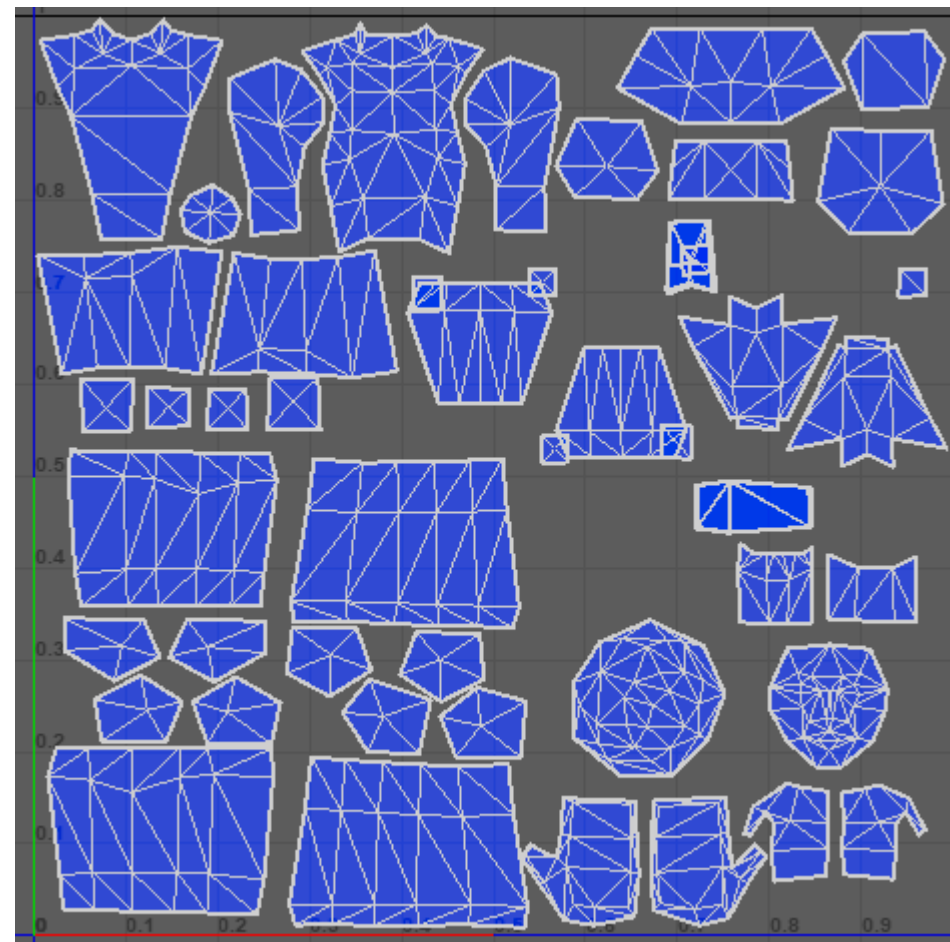
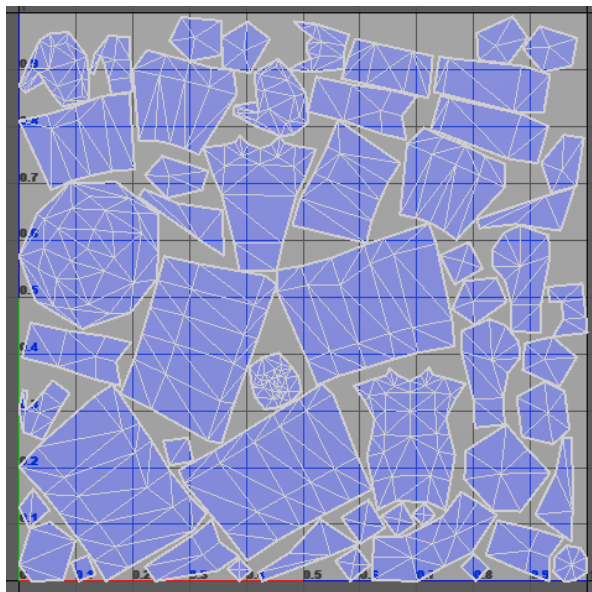
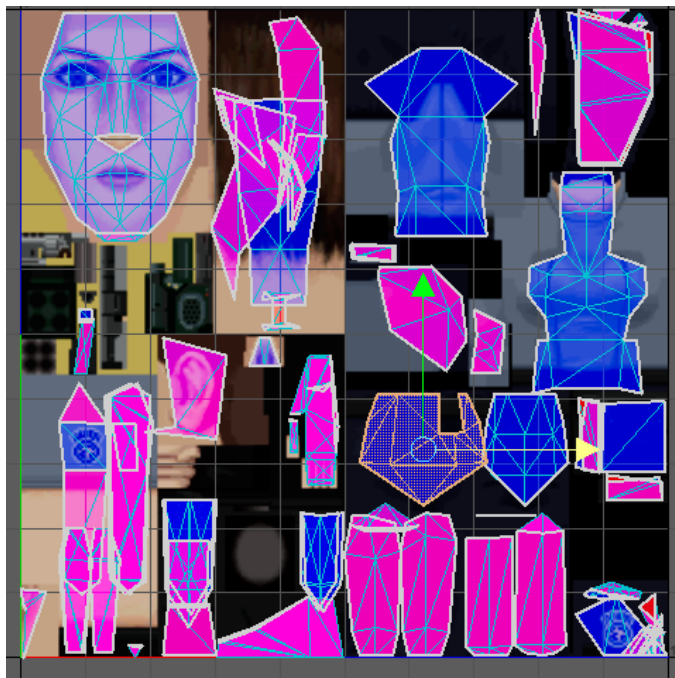
i found an .obj file of the model and pulled it into maya for reference

Verts:	377
Edges:	1032
Faces:	685
Tris:	685
UVs:	717

Verts:	378
Edges:	1027
Faces:	678
Tris:	692
UVs:	622

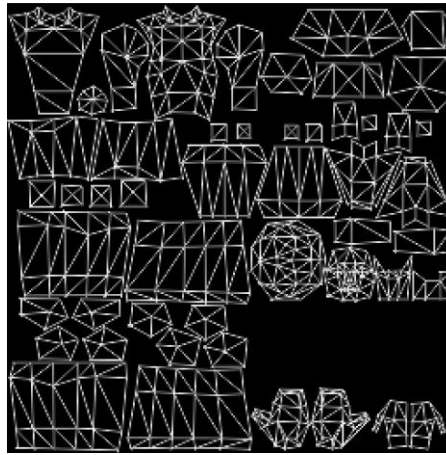
step 4: UVs

- i was on my own for UVs, i couldn't find any reference materials for how the original PS1 models handled them outside of unsatisfactory modern tutorials
 - i didn't realize that the .obj of Jill Valentine i was referencing actually had the UVs and textures still. i would do a lot of things very differently now looking at them...



step 5: texturing

- ps1 models had very low-res textures. i decided to replicate the resolution at the very least (256x256px)
 - this is on the higher-end for ps1 models, reserved for main characters. background character textures were smaller.
 - i wanted to replicate how nicely laid out the ps1 texture files seemed to be but i didn't realize how you could easily modify the shape of uv shells to more properly map onto them until after i did most of my texture work... ☹
- i initially ended up exporting the UV shells to a file and painting under them in photoshop. i would then bring them into maya and stretch/squash the UV shells to more properly map onto them.



- i first tested to see how just painting them looked on the model.
 - ps1 textures had a lot of noise/crunchiness that i couldn't easily replicate with photoshop brushes.
 - Bill and i tried figuring out a binary square brush in the photoshop legacy brushes but i still found working with them to make my own textures to be unsatisfactory.
- ps1 textures often used photo-bashing techniques for a sort of stylized, low-res realism.
 - i initially did not want to do this as i had never done anything like it before and thought it would be frustrating/tedious.
 - i ended up deciding to do it anyways, as i really wanted to replicate the ps1 aesthetic...

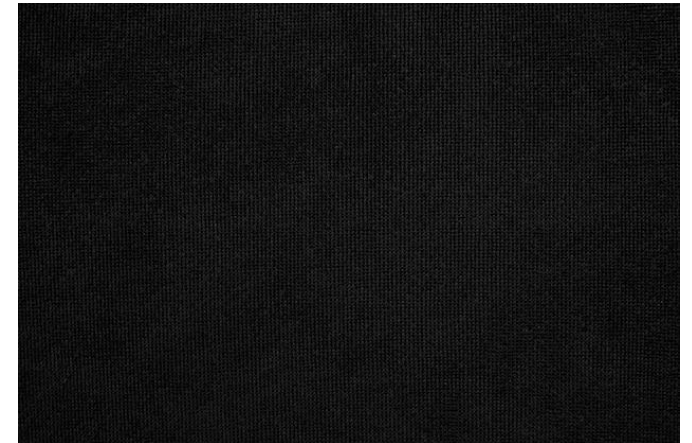


step 5.5: photobashing prep

- i went to google and started collecting textures/pictures to shrink down and work with

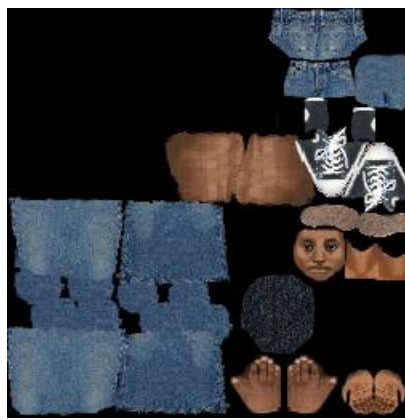


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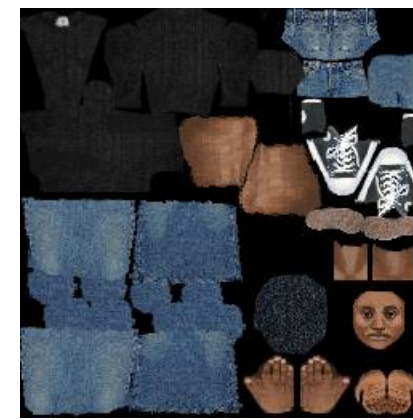


step 5.5: photobashing

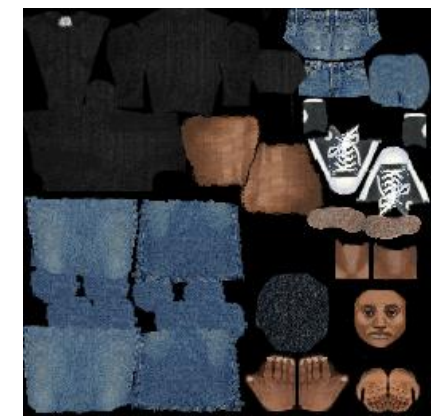
- i shrank my pictures down and cut them up to fit them under my UV shells
 - some images would become too compressed under certain resizing algorithms so i also had to play with those for best results
 - i also used color indexing to attempt to replicate the limited colors of the ps1. this added some additional dithering, which further helped replicate the ps1 look.
- i would then use the clone stamp tool to stretch/expand and unify textures as needed
 - i also did some painting for shading/detail work. mainly the face and palms.
- i needed to iterate on these a few times as my UVs led to a lot of undesirable stretching/distortion on the model, unfortunately



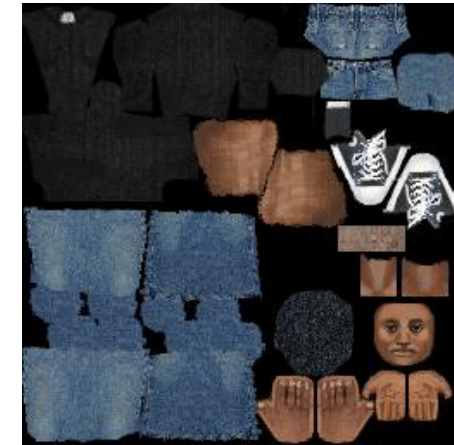
1. first test with photobashed textures



2. modified face, tweaked positioning, added shirt

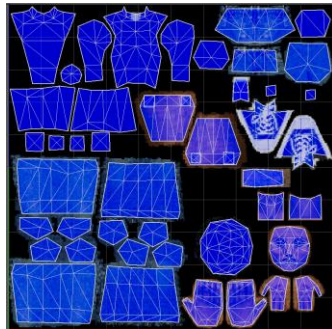
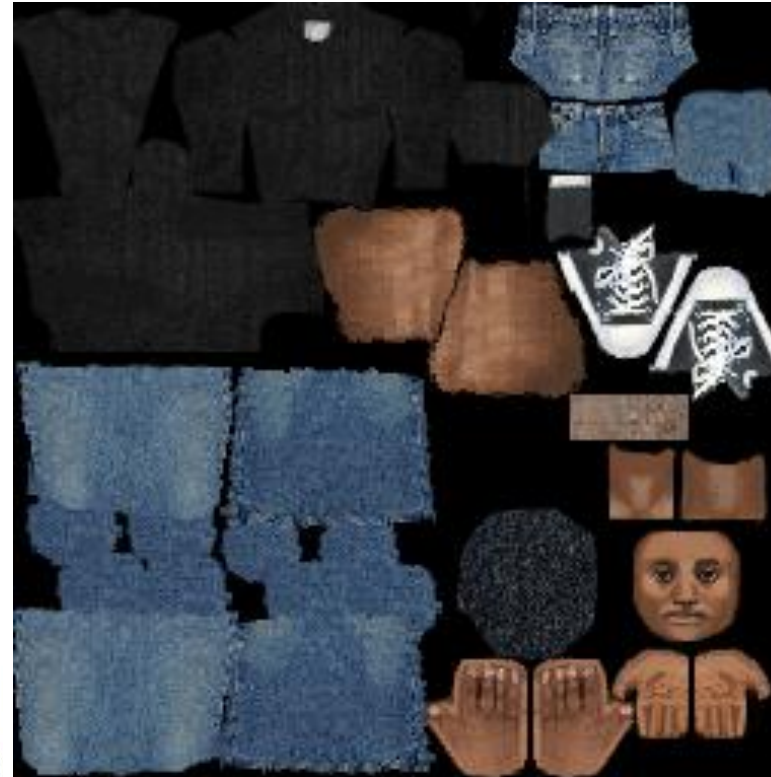


3. squared off hands

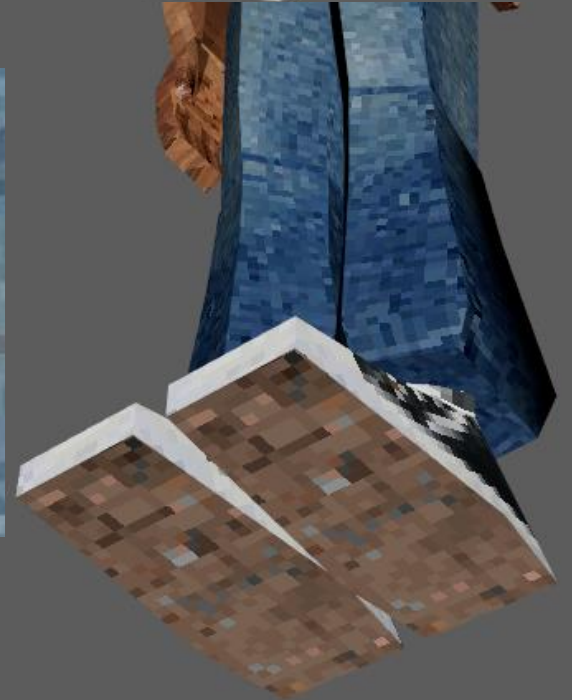


4. tweaked shoes, expanded face, fixed palms and expanded hands, changed sole and shoe textures

5. final texture, fixed wrong shirt texture placement

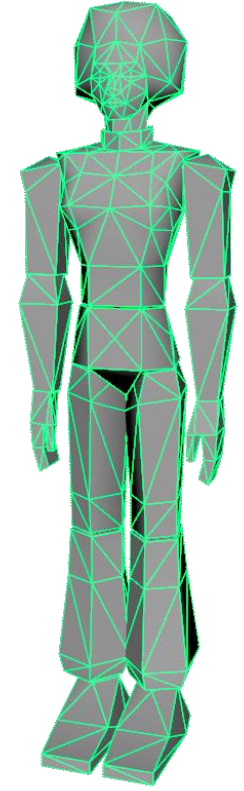


step 5.5: detail shots



step 6: final renders

- i ended up rendering these using the “playblast” feature in maya, utilizing the viewport view of the model
 - i tried using the Arnold renderer but didn’t like the lighting options
- i created a turnaround camera on the model that circled around it for 1200 frames.
- i then playblasted the model, using the turnaround camera to render the frames at a large resolution
 - this output the frames into a designated folder, named iteratively
- i then brought the frames into adobe after effects, where i was able to quickly splice them together, speed them up and turn them into transparent gifs.



project goals met?

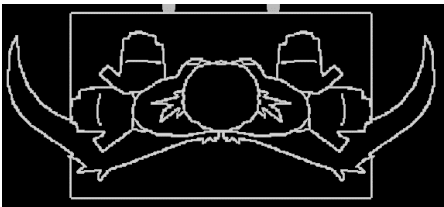
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(modified?) stretch goal

- while i didn't get around to modeling a second character, i did get around to concepting design ideas.



GODDESS
• BUDA (EULEYE/HYENA)
• HARRY/SIREN ELEMENTS
• 4 ARMS?
• HYENA HEAD? BIRD HEAD?
• CUCOO BIRD ELEMENTS





pardon my friends' little notes on these lol