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Uaguzi

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Masters Thesis

"Uaguzi"

by

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"Uaguzi"

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Christopher Erin Walsh
November, 1993

Acknowledgments

I would like to thank all who have helped and encouraged me over the last two years of graduate school to complete this project and receive a MFA in Computer Animation: First and foremost, Christine M. & Richard T. Walsh, my parents; Terry Ellen Walsh, my favorite sister; for their love and support which made everything possible; my thesis committee for their outstanding knowledge and advice: Jack Slutzky, Steve Kurtz, and Erik Timmerman; my good friends: Genevieve Fox, George Traikovich, Andrew "Fishy" McPhillips, Kent Francis, Steve Givas, Steve Kurtz, and Ted Pratt for making graduate school a whole lot of fun.

For a better understanding of this thesis paper, I would like to invite you to view the computer animation I created for my thesis. A tape of "Uaguzi" is on file in the Media Resource Lab in the "A" floor or basement of the Wallace Memorial Library.

"Uaguzi"
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My Challenge

I came to RIT, for a MFA in Computer Animation, with one aim in mind: to learn 3D animation. The most difficult part about my animation theses was finding a project that would challenge all that I had learned up to this point. I didn't want to just fly the camera around objects, as I'd seen in previous theses' and three dimensional animations. That was the easy way out! I set my goals high. I wanted to see if I could bring characters to life in 3D. I wanted to take traditional two dimensional character animation techniques and apply the movement to three dimensional models.

II.

Thesis Proposal

The idea for "Uaguzi" was inspired mainly from my art background. First and foremost, I am an painter. I felt that my thesis had to be about something that was closely related to my interests. I turned to art history to find a story. The cave paintings of Europe(Lascaux), Africa, and North America have always intrigued me. They have a simple, primitive beauty about them. Ever since these mystical drawings were discovered, they have raised many questions about the people who drew them and why they were drawn.

I was very excited about doing a story about primitive art using high technology. I wanted the story to be simple and universal. I decided to have one character(Ashanti) who would struggle with his manhood, self-image and identity at first and through painting an image on a cave wall would succeed, becoming the "great hunter".

I decided on a story in which Ashanti would fail in hunting gazelles. He would return to his cave hungry and rejected. While sitting in the mouth of the cave, Ashanti sees a group of gazelles running nearby, this inspires him to create a cave painting of a gazelle. By the act of creating this painting, he becomes successful.

With this sketchy outline, I began making models and started to animate. At that time, the most important thing to me was animating the gazelle in a graceful running gait. Since I had never made anything move like this before and was so eager to do so, I hurried into the challenge before fully developing my story. I thought if I could animate the gazelles, the rest of the animation would come easily and the story would fall into place. But now I see that fully developing my story before getting too involved with the animation would have saved me a lot of time.

III.
Design and Modeling

Working with Topas 4.2 on a 486pc, I knew I had a limited amount of power to work with. I had to constantly remind myself of this and to be selective of where to use it most effectively. I deliberately designed everything to be as simple and functional as I could. I thought an abstract look would be best suited for this animation and would be more stimulating to the imagination.

The less representative the images were, the more leeway I could have. Ashanti and the gazelles were modeled after primitive African idols and sculptures. The elements of primitive African sculptures were perfect foundations to base my characters on. They are not realistic representations of humans, but figuratively abstract; but not so abstract that one can not tell what they are. Everyone knows how and what a human looks like walking, running, etc., but who has seen an African idol running across the room?

After creating a rough sketch of what Ashanti's body was to look like, I showed the sketch to Professor Jack Slutzsky. He felt that my basic figure had "a good personality that he could relate to " and pointed out that I needed to make Ashanti bend in the same places that I myself did. Professor Jack Slutzsky said, that by acting out what Ashanti was to do myself, I could discover the movement I wanted to animate. This idea greatly helped me to animate Ashanti.

Ashanti's gazelle mask was also designed from looking at many different primitive African masks. Since I could not find a photograph of an actual "gazelle mask" I took many different elements that I liked, and combined them with some characteristics of a gazelle's head.

I wanted Ashanti's face to be the most expressive element in the animation. I wanted it to be unique. Ahanti's face was inspired by the early abstract paintings of African masks by Pablo Picasso. These early Picasso abstracts of African masks have the raw, bold power that shocked the art world in the early 1900's(i.e. Le Demoiselles d'Avignon, 1907, Daix, Pg.73) This is what I was hoping to incorporate in my animation. I collaged elements from four separate Picasso paintings to create Ashanti's face. From the collage, the model for Ashanti's face was extruded, beveled, and molded around and out of the texture maps. This brought the third dimension to the collage I made.

For the design of the landscape, again I had to be concerned with how many polygons I was to use. But yet, I had to have an effective abstract look and feel that was consistent with the models of Ashanti and the gazelles. Also, I did not want to be constantly building models for separate scenes. I decided to create one large "stage-like" model where all the action could take place. The model would have to contain everything that was needed throughout the movie. Whatever was not seen by the camera would then be deleted to save memory and rendering time. By creating one stage, I saved time in modeling and could start animating quickly.

IV.
Story Boarding

I started working on the storyboards as I was building my models. I feel, story boarding is the most important part of planning an animation or film. Storyboarding allowed me to work out details like how, what, where and when events were to happen and how they looked in each shot. This process allowed me to sit down at the computer to freely create animation. As I finished each shot, I would check it off on the storyboard. This was a reliable indicator of how I was progressing. It was also a good motivator. My storyboards were quick rough sketches. I gave more credence to the planning of each shot and how it related to the previous shots and the story, than I did on spending time creating detailed drawings. For me, the storyboards are not set in stone. It was an ongoing day-to-day process. As I animated, I found some shots did not work at all for one reason or another. Those were either cut out all together or replaced with a new shot. In other places, I found I needed to add shots to make the story clearer. The storyboard was the blueprint of my animation.

V.

Animation Production

Topas 4.2

In February 1993, the department upgraded Topas 3.6 to the current 4.2 version. Without this upgrade, a large portion of my animation would not have been possible. The 4.2 version allows you to cut, copy and paste within the animation script. This improvement allowed me to do cycle animation, by copying the movement of an object(one cycle) and repeating it over time. Another improvement over the 3.6 version, was a variety of lighting options (omni lights, distant lights and spot lights) that could be grouped to objects and animated. Along with these two major changes there were many other smaller improvements that make Topas 4.2 a versatile PC animation package.

Animating

Topas 4.2 animations are produced by selecting key positions of your objects at various times in your animation. The computer interpolates the intermediate positions of your objects at the speed it is moving. This forms the motion paths of your objects. Interpolation is a mathematical process which takes the two end positions and determines each intermediate position based on the speed of change. In animation, this is often called "inbetweening" or "tweening." It is interpolation which allows key frame animation.

The first models I set out to animate were the gazelles. My first tests failed miserably! I then found the key was to have the joints hinged in the correct places

allowing the model to mimic the movement of live gazelles. I found it was very easy to lose my place in the animation process. I had to be very focused. For me, it was easiest to concentrate on one thing at a time. For example, while I was animating the gazelles running, I directed my attention to on how the legs, neck and head moved first. Once I felt comfortable with the motion of the head, neck, and legs, I went back to existing key frames and added the vertical bounce of the gazelle. Again, I would go back to earlier key frames and make the gazelle move over a distance to create the movement. Finally, I would go back and set the camera where I wanted it. By this layering process, I was able to keep track of what I was doing and create the animation I wanted.

The other big discovery I made was that I did not have to reinvent animation. I found a large percentage of the movements I wanted to animate in simple "how to" animation books located at the local arts & craft store. These books are for character and traditional cartoon animation which translated brilliantly to 3D animation (Blair, Pg. 12). Between the "how to" books and my acting out movements, I was able to create any 3D character animation I wanted. On any given day in the computer lab, you could find me jumping, crawling, sitting up and down, swinging, throwing, running in place, dancing, and doing all kinds of weird things trying to relate my own movements to the character I was trying to animate!

Another reference I used for animal locomotion was the photography of Eadweard Muybridge (the father of the moving picture, MacDonnel, Pg. 35). In the late 1800's and early 1900's, Muybridge photographed all types of animal and human locomotion. He set a succession of cameras in a line that would fire off by trip wires as an animal walked, ran, or flew by. Muybridge's photos broke down the movement of locomotion into individual poses.

The most famous sets of photographs were those of a horse as it galloped. These photographs finally proved that a horse does leave the ground as it runs (Hass, Pg.29).

Camera Movement and Positions

I was more concerned with what happened within the moving picture frame (the movement of characters) than with moving the camera. In most computer animations I 've seen, the camera flies around for no apparent reason. Just because you can doesn't mean that you should. The only time I felt it necessary to move the camera was when I wanted to reveal something, keep up with the movement of the characters or add to the movement.

Camera positions were arranged to keep the movement flowing in a linear fashion. It was not easy at first. A few times what I had sketched out on a storyboard did not turn out the same in 3D. Luckily, Professor Erik Timmerman pointed out my mistakes to me early on in my project. It is possible to get so involved with a project sometimes it's really easy not to see what you're precisely doing. It is a good idea to have outside criticism periodically. It was easy to correct the camera position in the animation script, but painfully time consuming in re-rendering. Sometimes, I deliberately broke the camera plane. Professor Timmerman suggested if that this was done correctly the effect would be breathtaking. During the chase scene were Ashanti chases and catches up with the gazelles, I broke the camera plane to create visual tension.

Previews and Flipbooks

A real-time preview is a monochrome wire frame animation which plays back at the speed an actual recorded animation would have. I was constantly checking my animation with real time previews. The preview is one of the best features about computer animation programs, allowing you to review your animation within minutes of its creation.

A flipbook is a full color animation preview. A flipbook can be a full representation of your animation. Since it takes much time to render, I created flipbooks only after I had completely finished animating a scene. I'd usually have to let the computer run overnight to create a flipbook.

Problems and Solutions

What made animating Uaguzi so challenging and rewarding was overcoming the problems which arose everyday, this included modeling, setting up shots, animating, lighting, hardware and software problems. Each day there were different problems to resolve. I 'll refer to some of the big problems I encountered.

The first big problem occurred when I wanted to do a test render of the five gazelles running with no backgrounds to the optical disk recorder. I found that my models with their texture maps and animation were just over sixteen megabytes. This was more than the computer had in RAM. Therefore, when the computer was trying to send the signal to the Optical Disk Recorder, the computer was swapping out the ODR driver because it did not have adequate virtual memory. I solved this in two ways: the easiest was to buy more RAM. I bought four megs myself and later Erik Timmerman lent me another eight. Then I reduced the actual size of my model. I did not want to reduce the number of gazelles. I had to find another method. I found that I could reduce the size of my models by compressing the maps I used. Maps or texture maps are images that Topas uses to cover objects. If you map an object, you are wrapping it with a two-dimensional picture. I took the pictures I digitized for the texture maps, and projected them on polygons on one screen, fully rendered the screen and saved the screen as a PICT, whereby consolidating my pictures to one screen. This cut the memory used for texture maps from five megs to one.

The second problem involved the drawing scenes. I was stumped on how to create the visual effect of Ashanti actually drawing. I wanted to show Ashanti's hand going across the screen producing a line. I knew I did not have enough memory to import pictures of the line being produced. I didn't want to go to a 2D program to produce it. I wanted to create the entire movie within Topas(3D). Finally, I took the line (polygon) I wanted to draw and chopped it into small overlapping pieces. I then animated Ashanti's hand over the line. At the appropriate time I "turned on" each individual segment of the line.

First I needed to make each piece transparent (invisible) and then turn it black to make it visible. This process was tedious. I had to do a lot of tweaking, checking, double checking and so on. But it was worth it. When played back at real-time the effect worked. Lo and behold, Ashanti drew!

My third and really big problem was the ending. I didn't have one! I clearly had the first two thirds of the story completely worked out, but the ending eluded me. The original idea for the ending was to have an ironic twist of fate. Ashanti would return to the cave with his kill to find another man painting an image of Ashanti on the wall. Ashanti realizes the significance of the drawing, drops the gazelle and frightened, runs away. The other individual would chase after Ashanti. However, after animating the sequence, I found that it did not have the effect I thought it would. Back to the drawing board.

After numerous meetings with members of my thesis committee, it was suggested I revolve the whole story around the drawing. I also needed to find away to tie together the drawing, the mask, the hunt and the "great hunter." I decided Ashanti would have a double-dream as he drew the gazelle. When he finished the drawing the gazelle would be in the cave roasting over a fire. Ashanti would adorn the gazelle mask and thank the gods for allowing this animal to be sacrificed by dancing around the fire. The dance would joyfully mimic the kill. At the end of the dance the image of the "great hunter" would appear on the wall next to the gazelle, thus tying all the pieces together.

Rendering to the Optical Disc Recorder

Rendering adds shading, highlights, color, and texture to a model. In the Crystal Desktop Animator there are three styles of rendering: wire frame, quickview and fullrender. Wireframe only gives the basic color information and outline of objects. It is the default drawing method in Topas 4.2 because it is the fastest method. Quickview adds more complex color, shading and highlights information to a model, but it only does this on a polygon-by-polygon basis, so even round objects like spheres will seem faceted. Quickviews are slower than wireframes but much faster than fullrender. Fullrender draws the model in its most complex form, including shadows and texture maps, and so forth. Fullrender is the most sophisticated of the rendering techniques, but is the also the slowest rendering method. Rendering is the most time consuming part of computer animation. I rendered to the Optical Disc Recorder in fullrender. The computer fills in the 3D wireframe models, colors and texture maps which the animator has selected in the animation frame-by-frame. Making a two dimensional picture from the 3D model, the rendering time depends on the rendering resolution, amount of texture maps, lights, shadows, and the complexity of the models. The scenes in my animation showing shadows doubled or tripled the rendering time. The resolution I rendered at was 512 X 482. Once the three dimensional model was fully rendered to a two dimensional picture, the optical disc driver sends the signal to the Optical Disc Recorder. The frame is permanently recorded by a laser to the optical disk. The optical disk is a "write once" disk. Once that individual frame is rendered to the disk, the computer erases the frame from memory and continues to the next frame.

The disk itself is an oversized industrial strength CD in a hard plastic case. The disc is roughly the size of an EP vinyl record. The disc holds thirty-six thousand frames, the equivalent of twenty minutes of footage. I rendered a total of twenty four thousand frames. The render times for my animation ranged from three to fourteen minutes per frame. If you take the average of the rendering times (per frame, 8.5 minutes) multiply it by twenty four thousand(number of frames), divide that by sixty (minutes in an hour), you end up with thirty four hundred hours of rendering time. Rendering then, is the most time consuming part of computer animating.

Transfer to Video

The three dimensional files were rendered from the computer to an optical disk recorder(ODR). Once on the optical disk, the rendered files were transferred to 3/4" videotape. The transfer from the ODR to an "AB" roll 3/4" videotape deck took place through a switch bay. The optical disk recorder offered some flexibility in the transfer speed of the files. Each shot could be transferred in "real-time," the actual speed at which it was animated, or it could be speeded up or slowed down. I only used this option once or twice. Another helpful feature was the ability to the playback scenes in reverse. This helped me create new shots without re-animating or re-rendering.

Video Editing

Editing is where all the pieces come together. It is really fun to see all the months of hard work fall into place. It was hard for me to cut shots for visual aesthetics. I wanted to put everything I had rendered into the film. I'd like to thank Professor Erik Timmerman for working with me on the editing. He helped me streamline the edits.

Soundtrack

For the Soundtrack, I wanted a primal African beat/rhythm. I felt that it would go hand-in-hand with the over all African theme of the animation. Rhythm and the drum are part of everyday life in Africa, the drum is the oldest of musical instruments. The drum, like many exotic articles, is charged with evocative power. The drum is not only a musical instrument, it is a sacred object and even the tangible form of divinity. It is endowed with a mysterious power, a sort of life force. I wanted the drum and rhythm to drive the film..

To assist with the soundtrack, I contacted Professor Fred Sturm of the Eastman School of Music, where he teaches film scoring. After showing Professor Sturm the first rough edit of Uaguzi, he was eager to have one of his students write music for me. I told him that I would like to have an African rhythm or percussion line. Professor Sturm introduced me to Primo Mussumeci a senior at the Eastman School of Music,

majoring as a performance percussionist. I discussed with Primo how I envisioned the soundtrack. When I watch the animation, I hear a lot of raw powerful drums combined with other instruments that are not usually associated with drums like a string quartet. I purposely left out a lot of detail when talking to Primo. I wanted Primo to write the score freely from the inspiration of the film, without a lot of restrictions. After all he is the composer.

Thesis Committee Meetings

My thesis committee board meetings were a great asset to me. Although I was unable to get all three professors together at the same time, their separate suggestions greatly helped throughout the production of Uaguzi. It was hard to make all the changes that they suggested. Each professor had different suggestions for solutions.

At first I was very reluctant to meet with my Thesis Committee Board. I felt that this film was my "baby" and I did not really want to hear or take anyone's advice. Sooner or later, I had to meet with them to get the film approved and receive my diploma. It took a while to realize that they were my professors for a reason. They really are knowledgeable in animation and film making. I am grateful for all their help throughout my project.

The Final Product: Conclusions

Producing and animating "Uaguzi" was a challenging but extremely gratifying experience. I am very proud of the final version of "Uaguzi." The end product is the result of six months hard work. I feel that I pushed the software and hardware to its fullest. I fulfilled what I set out to accomplish, in many circumstances, exceeding my own expectations.

Uaguzi

In Swahili, means the interpretations of dreams, a prediction, prophecy, the calling of a diviner.

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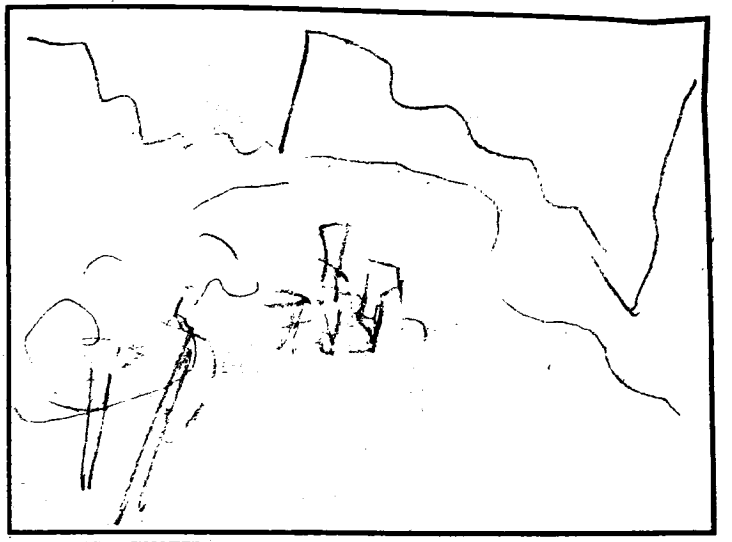
Storyboards

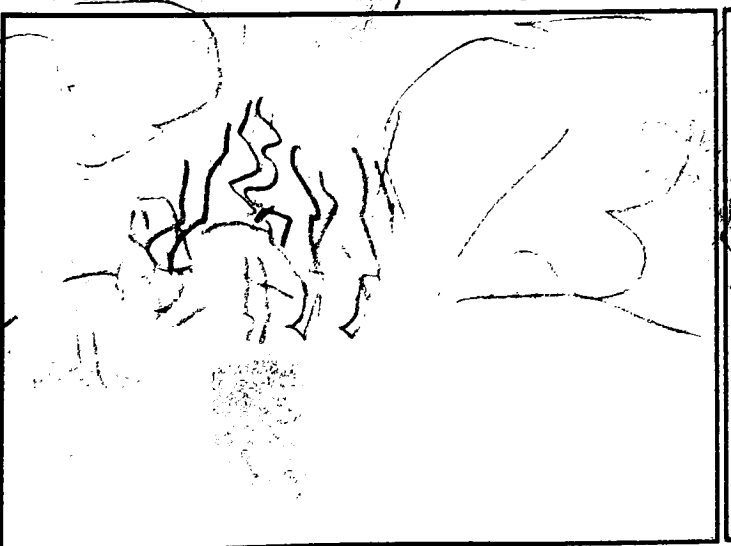
UA 3UZI



Long shot of GAZELLES GRAZING

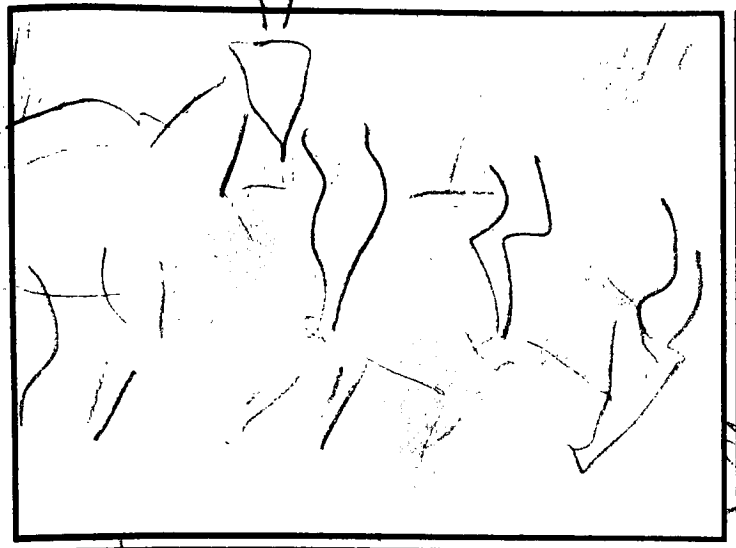
TRACKING SHOT SEEN IN BACK AND THEN FRONT — MED. SHOT

CUT TO CLOSE UP OF ASHANTI PUSHING THROUGH THE TALL GRASS

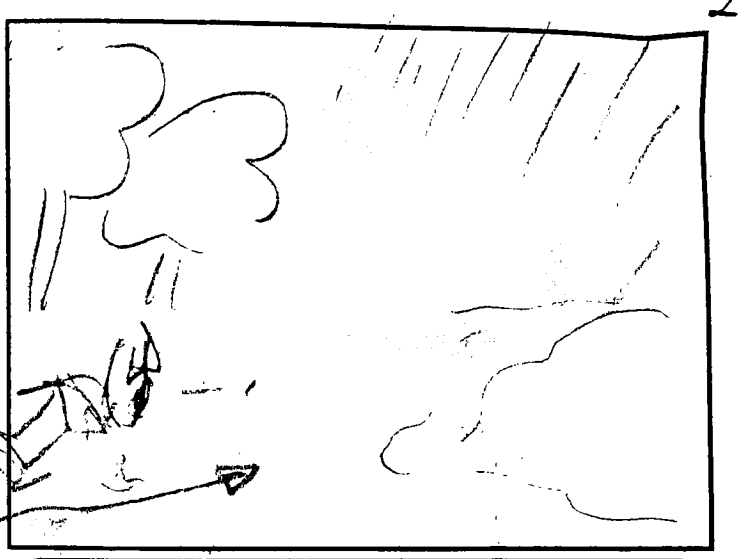


MED SHOT OF GAZELLES GRAZING

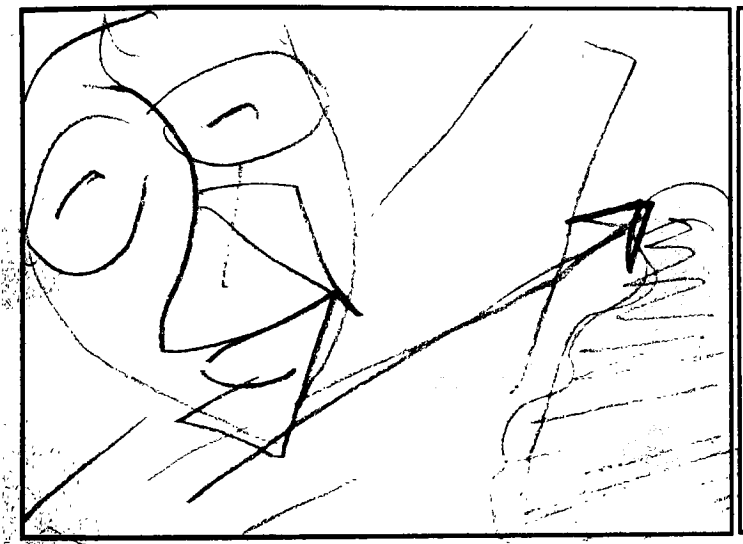
ASHANTI RUNS LEFT TO RIGHT ACROSS SCREEN, WITH GAZELLES ON LEFT



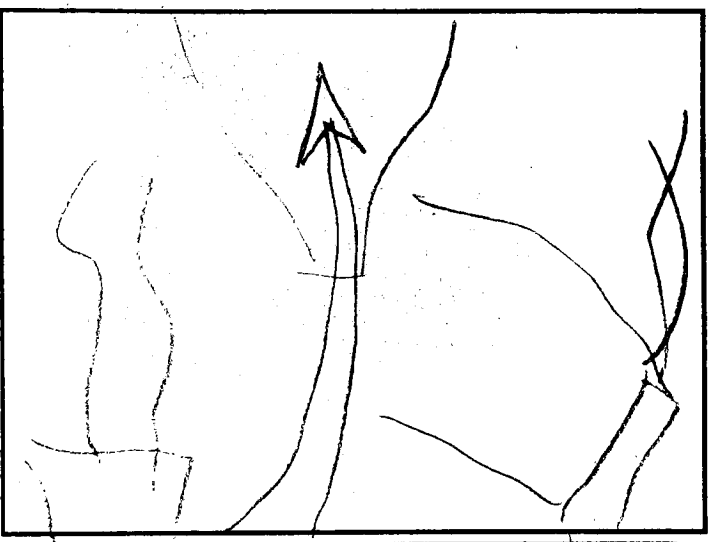
MED. SHOT -



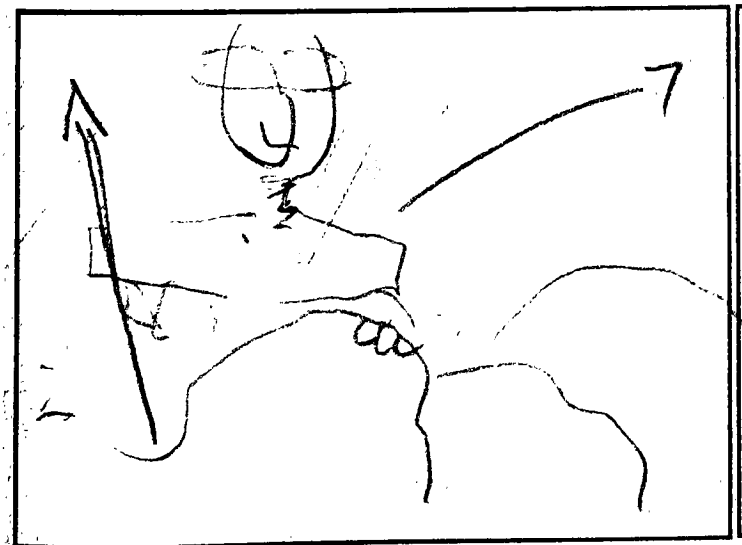
[illegible] TOWARDS [illegible]



CLOSE UP OF ASHA AS SHE LOOKS BEHIND HER

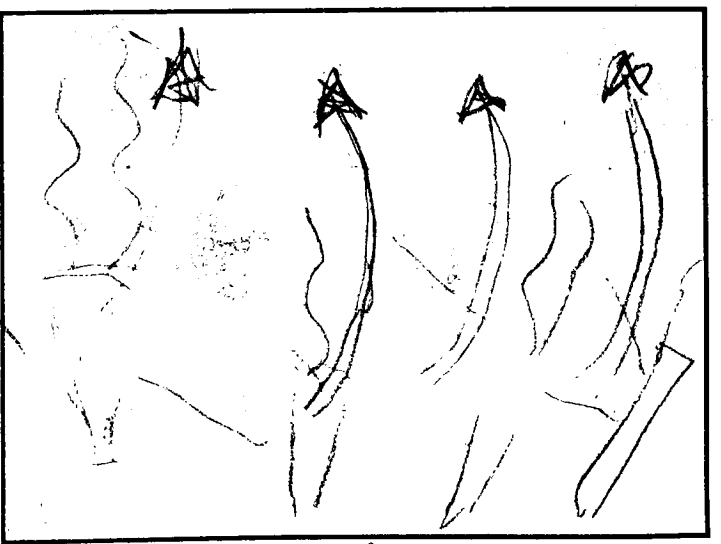


CLOSE [illegible] LOOKING HEAD [illegible]

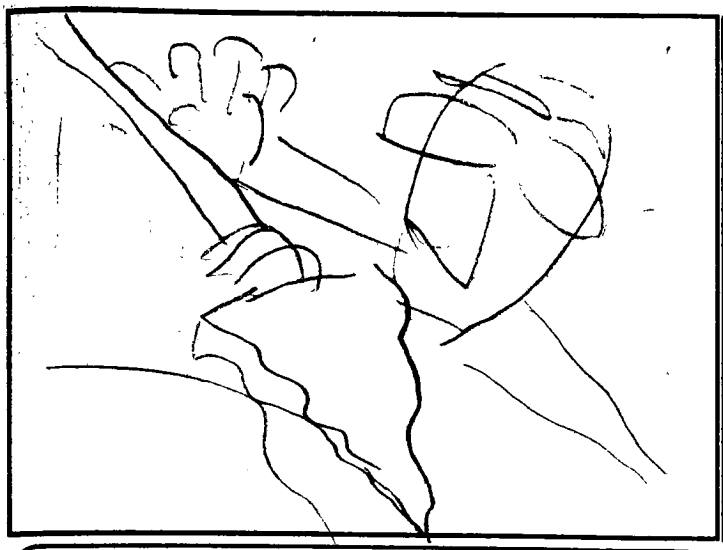


ASHA TURNS BEHIND AND LOOKS TO HER RIGHT.

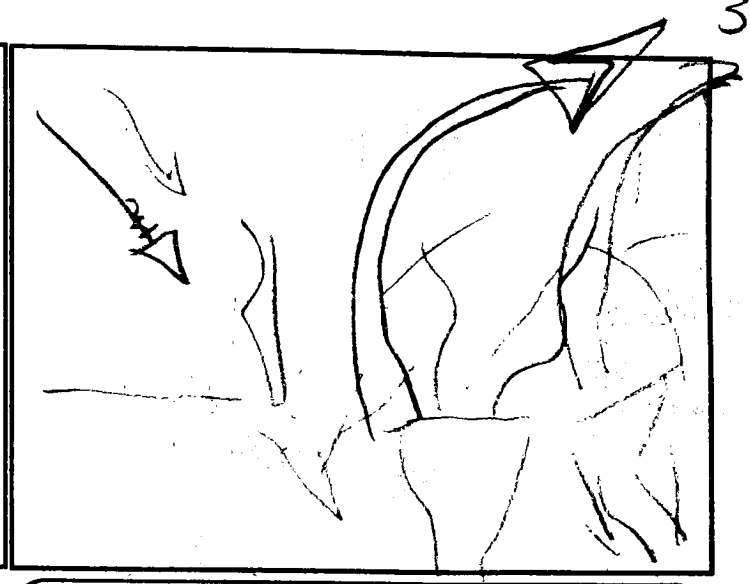
MED. SHOT



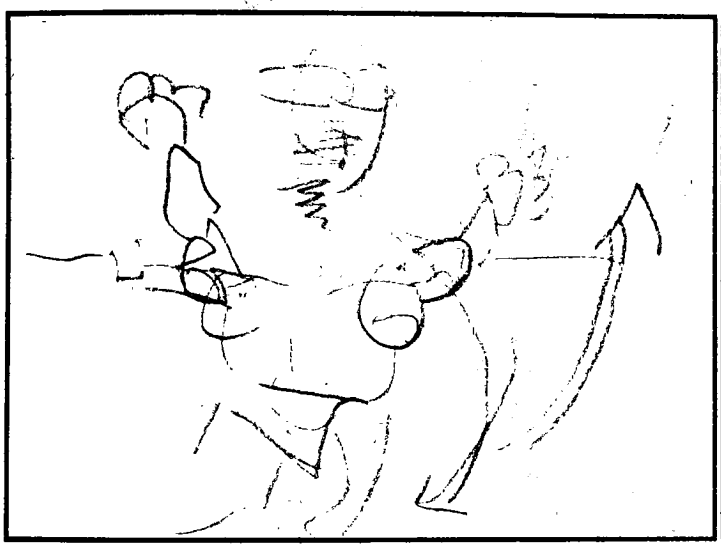
[illegible] LOOKING TOWARDS [illegible]



ASHANTI [illegible] INTO CAMERA

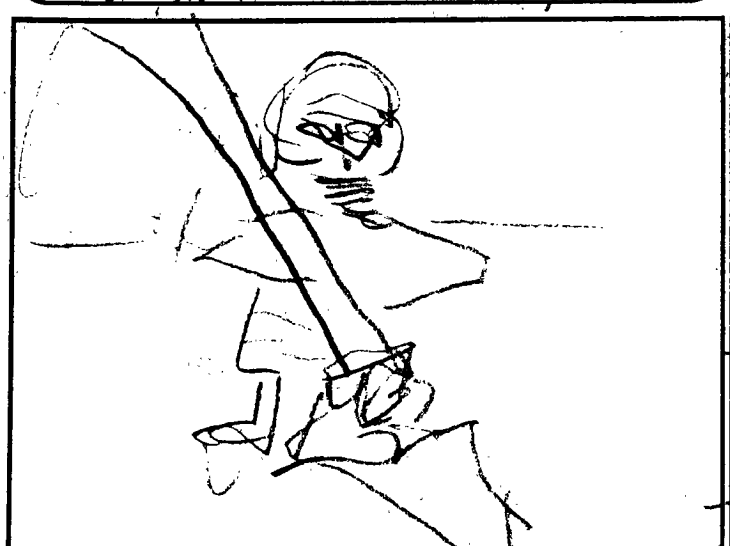


GAZELLE SPLIT AS A/2CW HITS GROUND

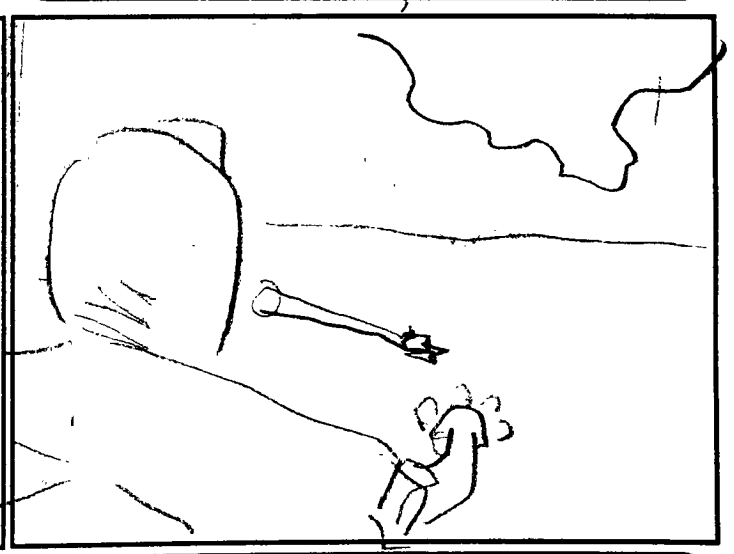


DAMN - ASHANTI MISSES SLAPS HANDS ON LEGS

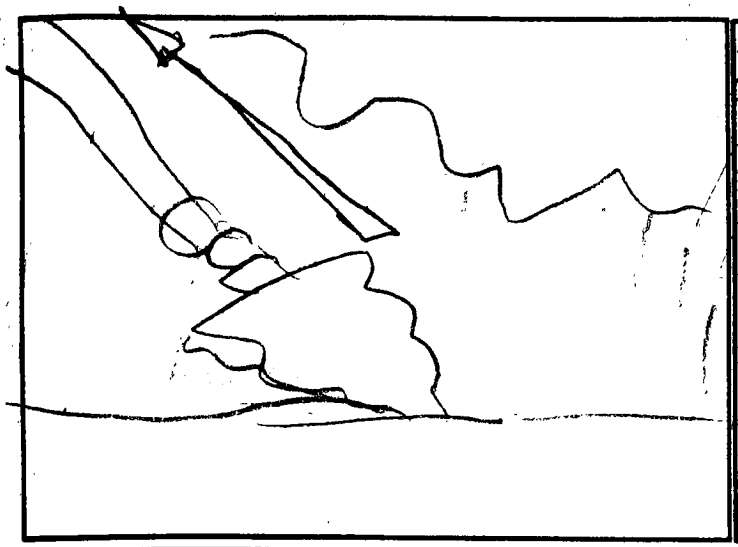
GAZELLES FLEE INTO LEFT TO RIGHT



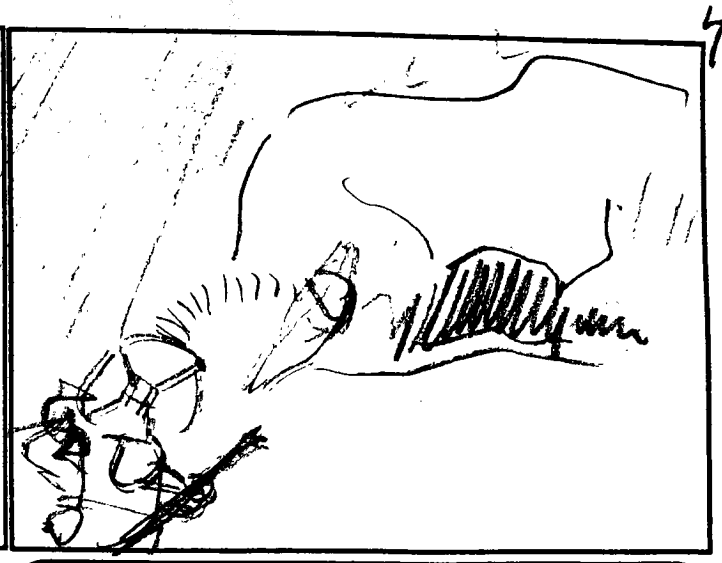
SPEAR STUCK IN GROUND IN FRONT [illegible] ASHANTI WALKS PAST TO [illegible]



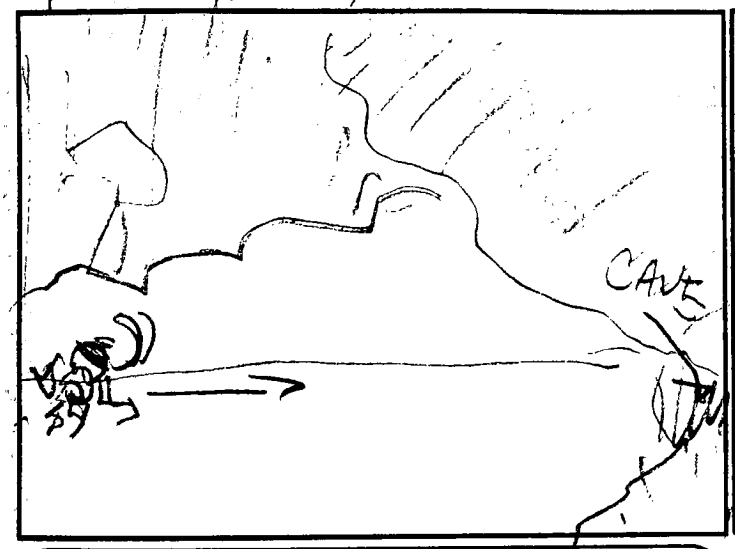
ASHANTI REACHES TO GRAB [illegible] ASHANTI - WIDE SHOT



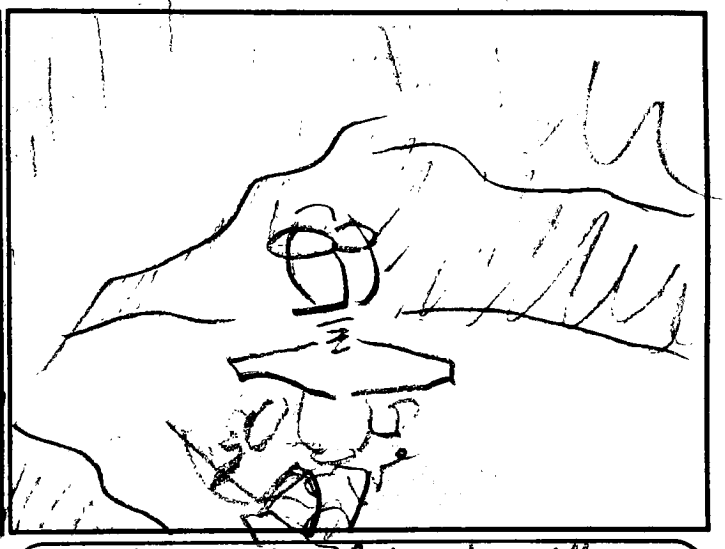
Close up - spear head being pulled out of ground



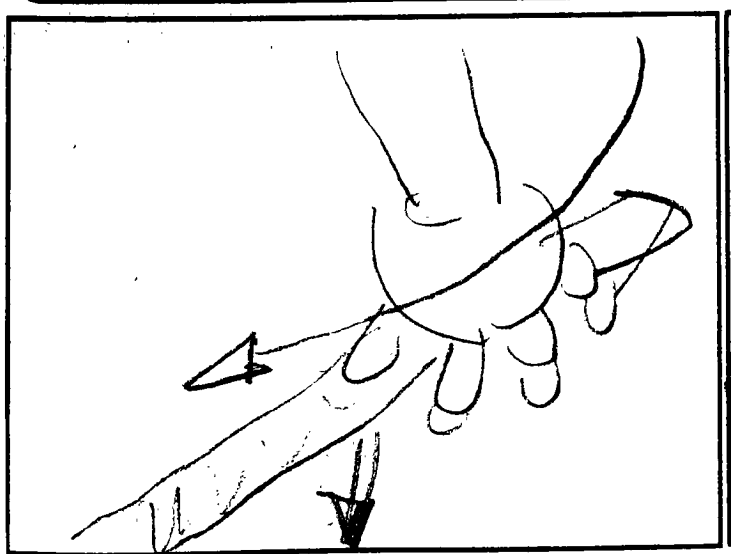
Ashanti walks reject - head hung, toward ENTRANCE of CAVE



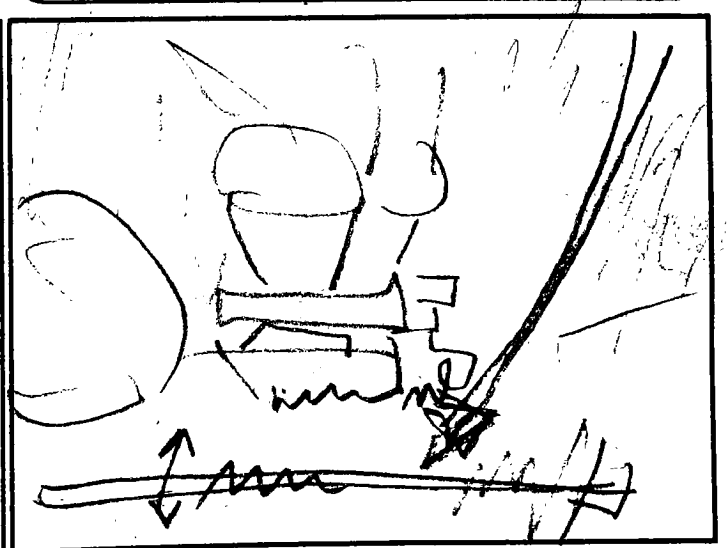
long shot of Ashanti walking toward the CAVE.



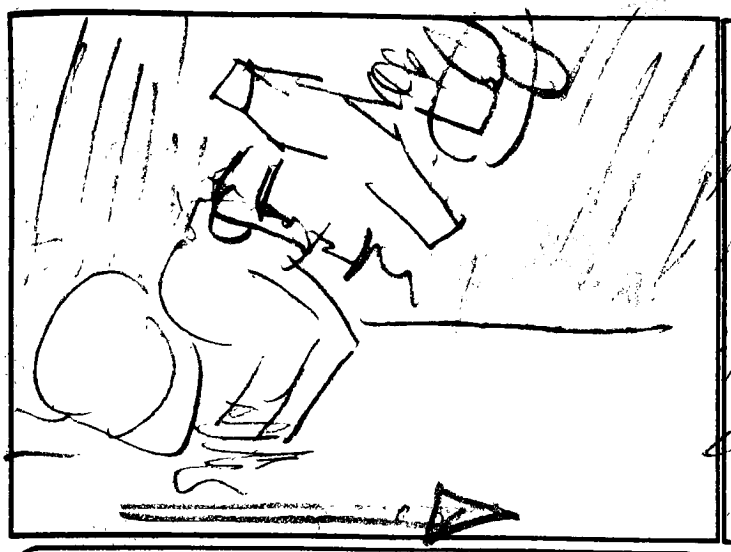
INSIDE CAVE - Ashanti walks INSIDE CAVE toward CAMERA



Close up of Ashanti's hand throwing the spear to the ground

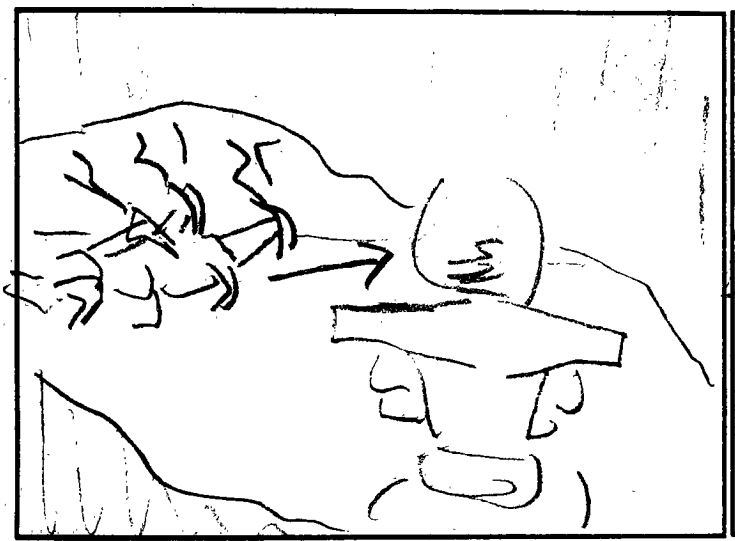


SPEAR bounces at Ashanti's FEET

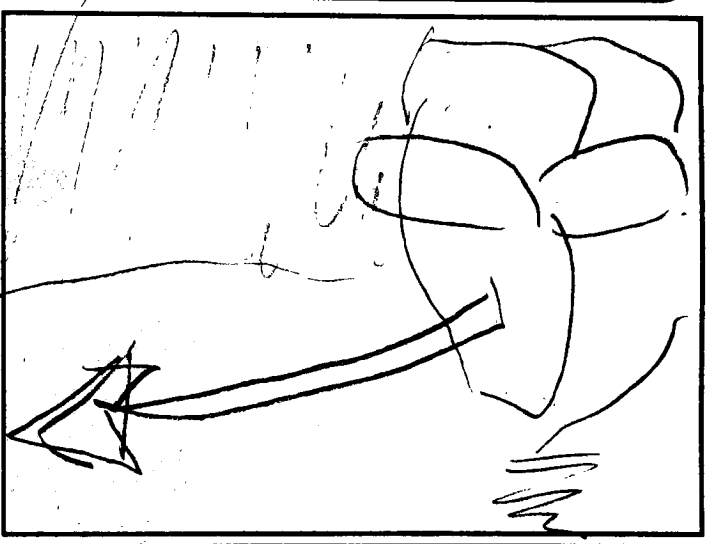


Ashanti sits on rock in CAVE.

Ashanti sits with ~~back~~ his Hands - C.U.

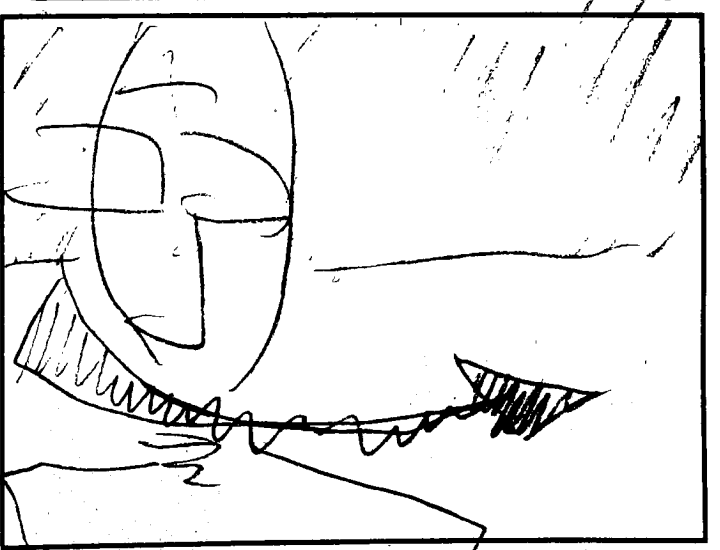


from inside CAVE - Ashanti watches caterpillars run by - He gets inspired

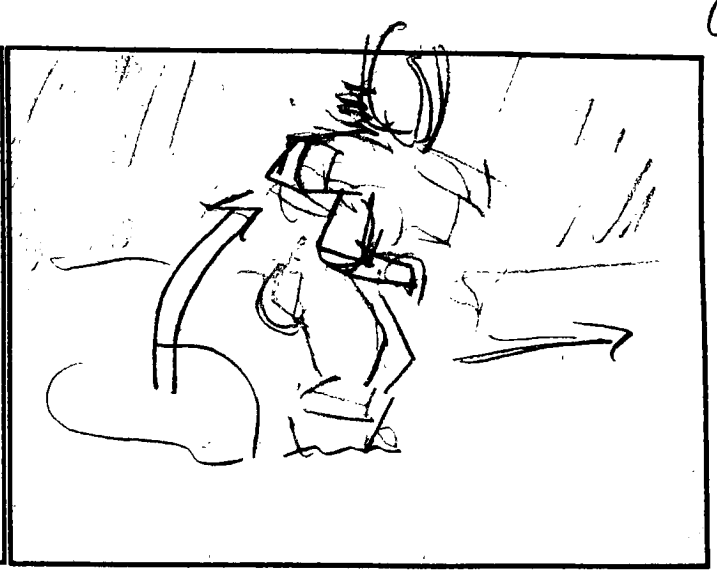


Ashanti looks at CAVE wall to his right

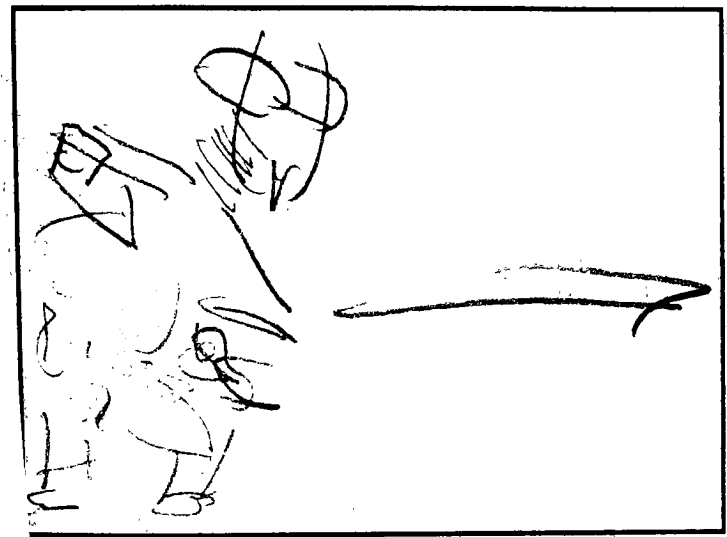
CAVE WALL



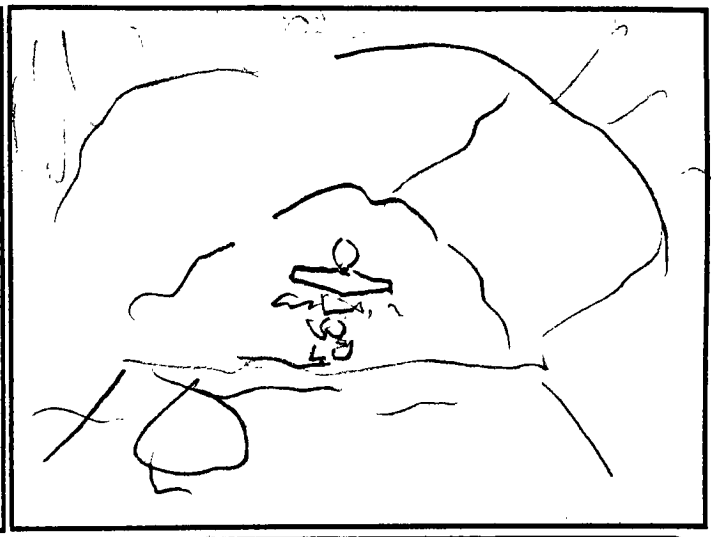
Ashanti looks at CAVE wall to his Left



ASHANTI STANDS UP, EXIT STAGE RIGHT

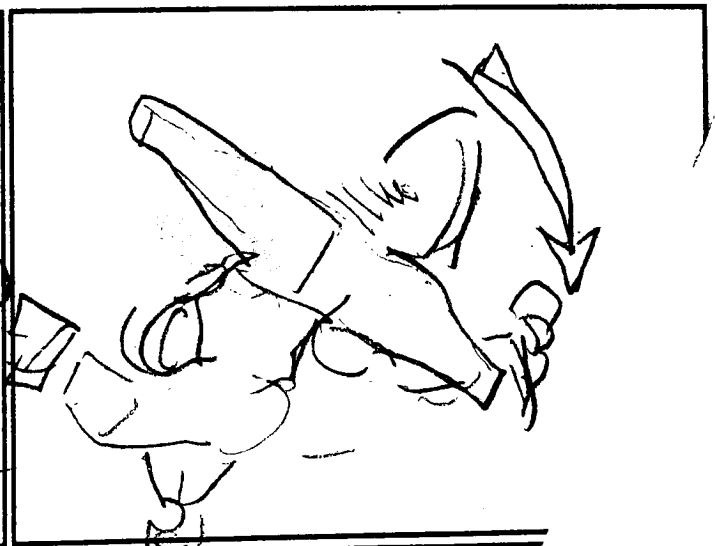


ASHANTI WALKS THROUGH SHOT LEFT TO RIGHT

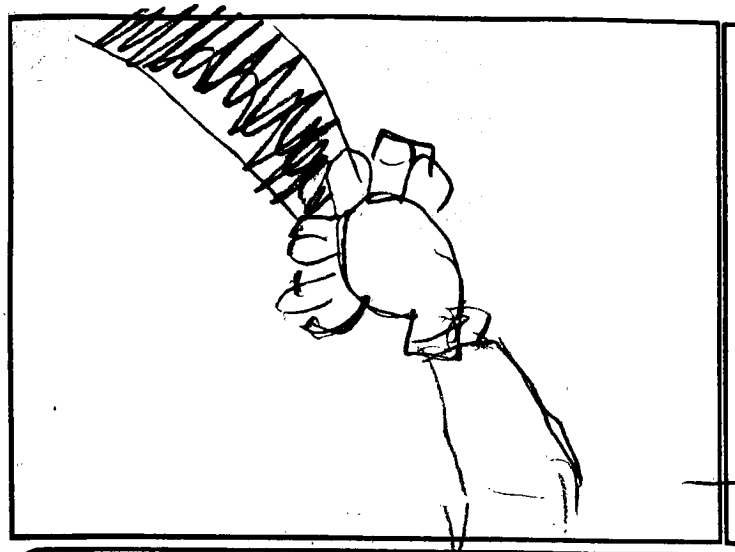


long SHOT OF ASHANTI STANDING INFRONT OF A BLANK CAVE WALL

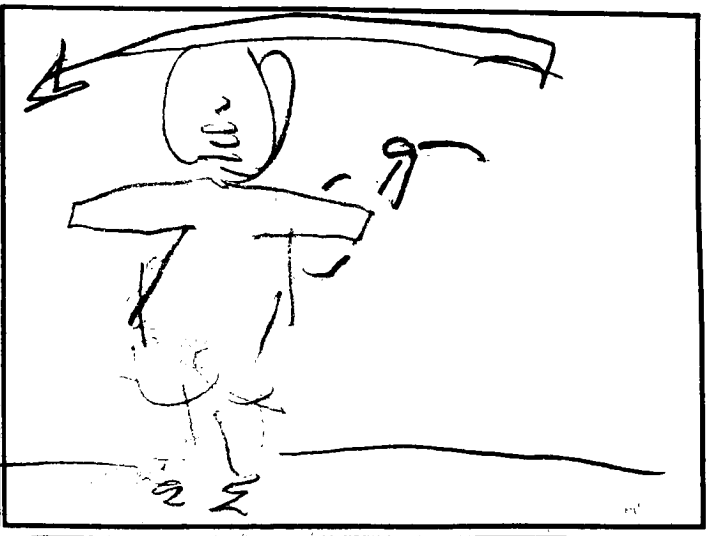
MYRRA REVOLVES AROUND ASHANTIS FACE AS HE LOOKS AT CAVE WALL



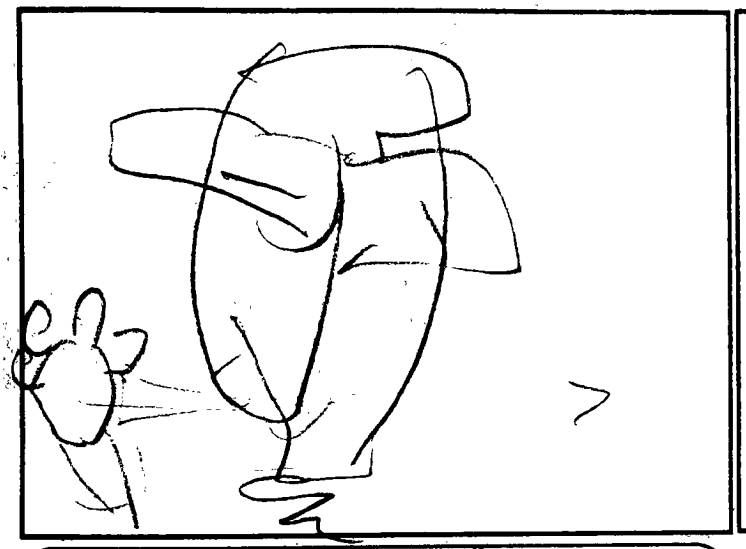
ASHANTI STRIKES CAVE WITH STONE



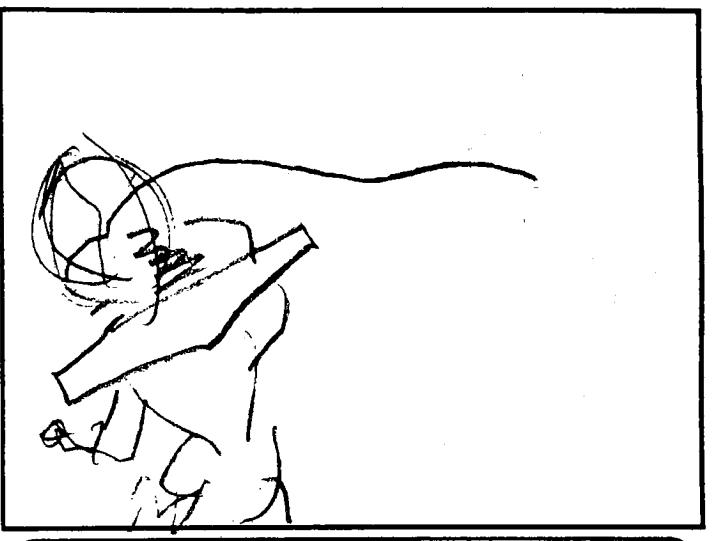
Close up of Ashanti's hand drawing a line on the cave wall



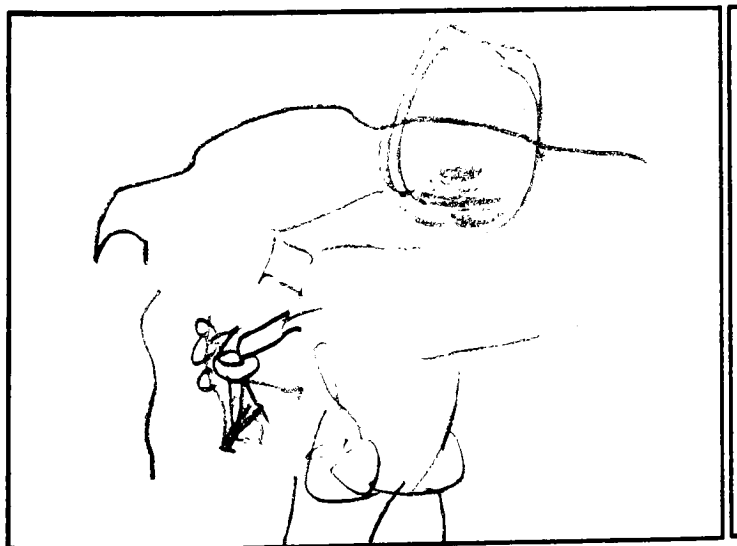
Ashanti draws/carves lines in cave wall right to left, med shot



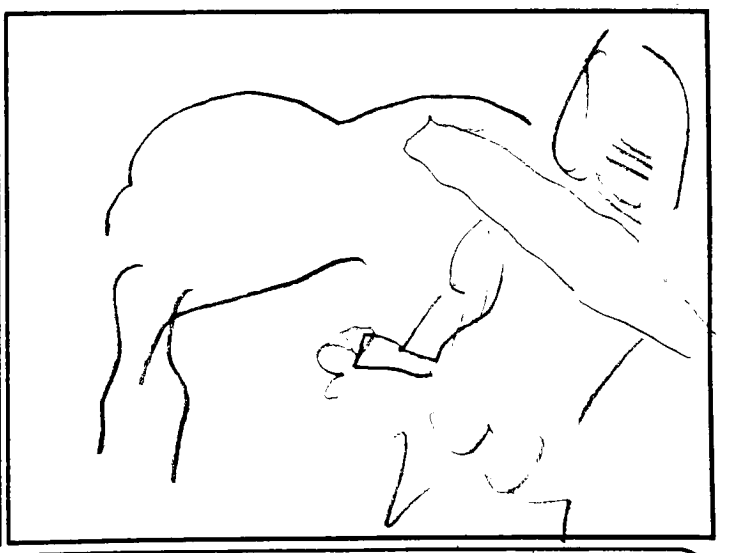
Close up of Ashanti's face drawing from left to Right



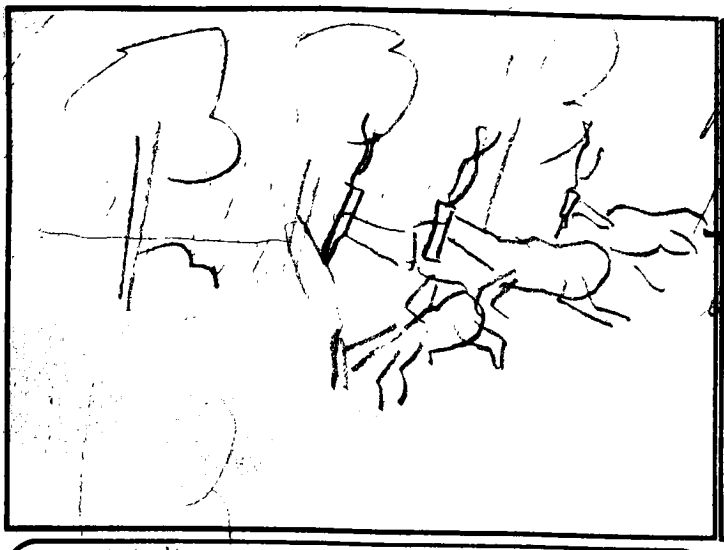
draws back of head



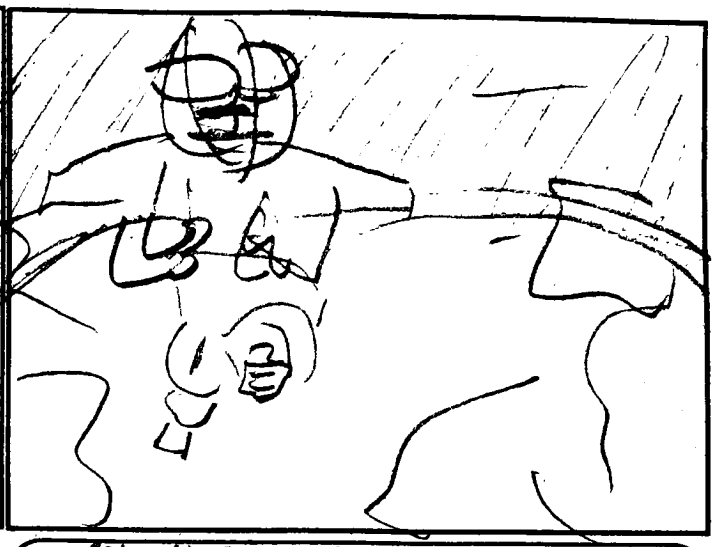
Ashanti draws hind legs



Ashanti draws inside hands and legs

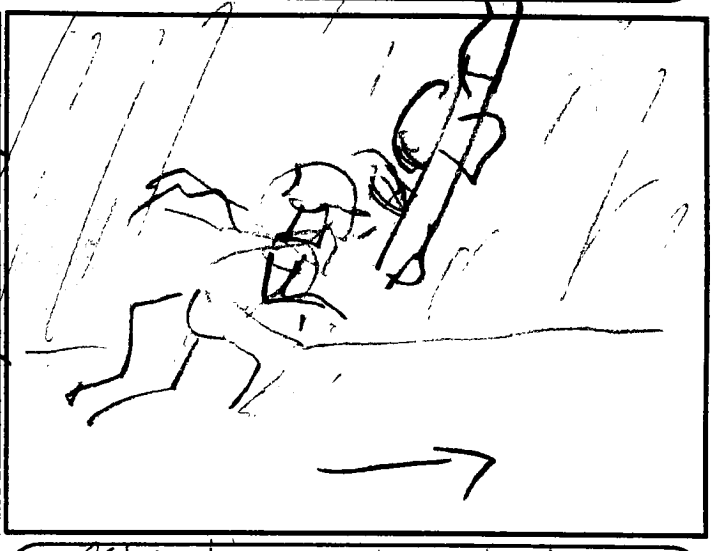


GAZELLES Running through ~~[illegible]~~ RIGHT to LEFT



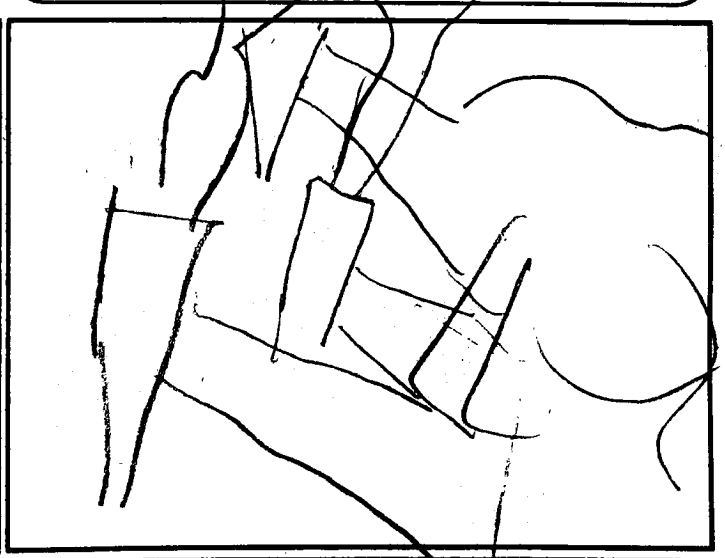
ASHANTI RUNS AS GIBBS SPINS

GAZELLES Right to left.
MED - CLOSE UP

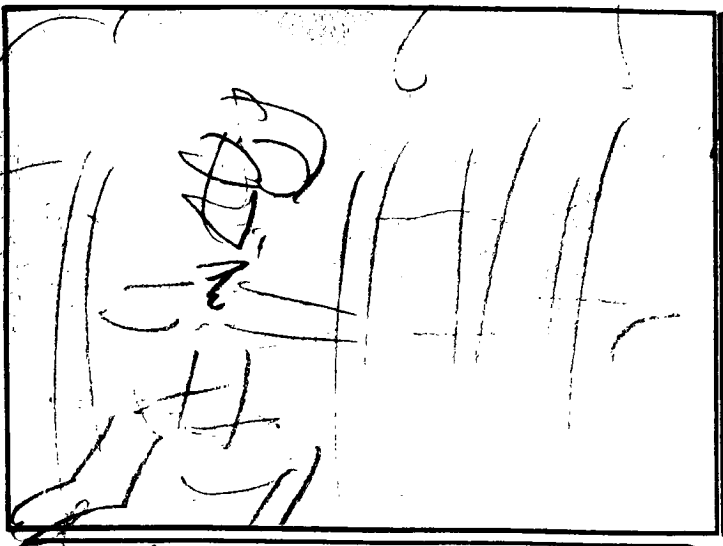


ASHANTI RUNS THROUGH SHOT
LEFT TO RIGHT

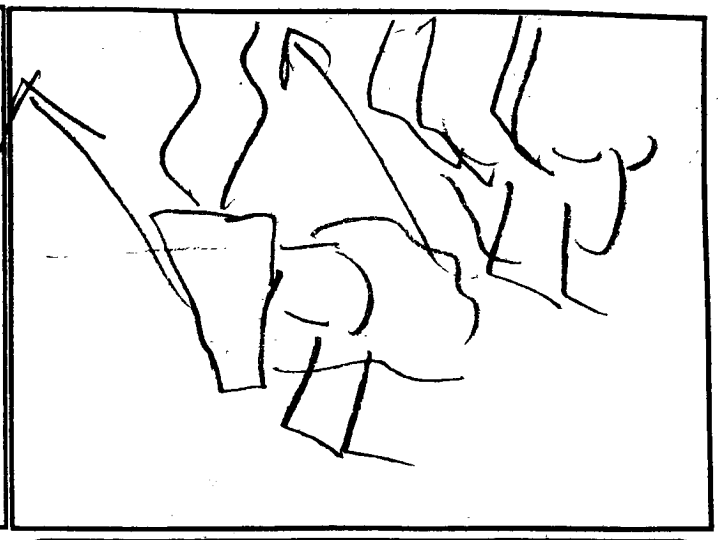
LEAVES fly off the ground
out of the FRAME left to right



CLOSE UP of GAZELLES
RUNNING

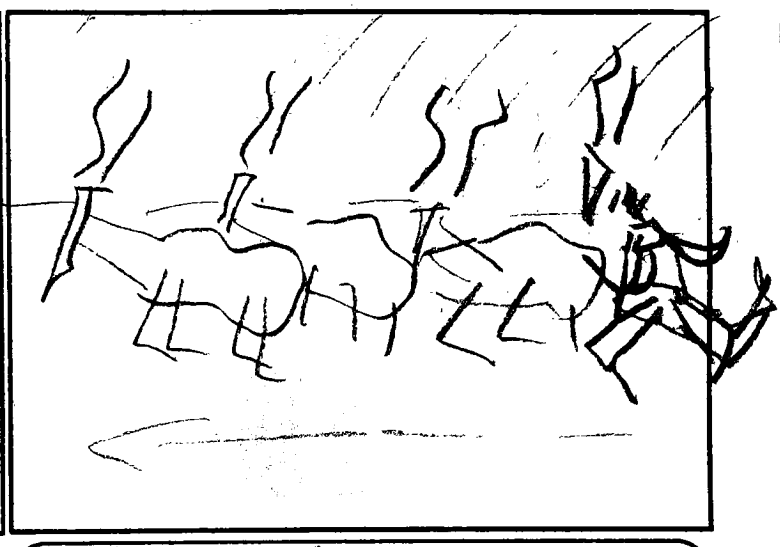


CAMERA DOLLIES WITH ASHANTI AS HE RUNS - TREES FLY BY.



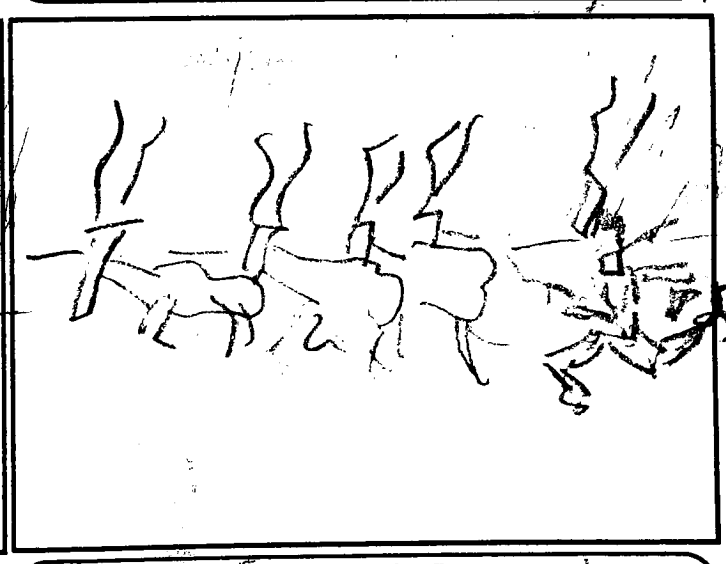
GAZELLES JUMP OVER CAMERA

ASHANTI RUNS WITH GAZELLES INTO CAMERA



SIDE SHOT OF ASHANTI RUNNING WITH GAZELLES - R to L THROUGH FRAME

CAMERA BEHIND GAZELLES - BOUNCES AS IF C- IS A GAZELLE

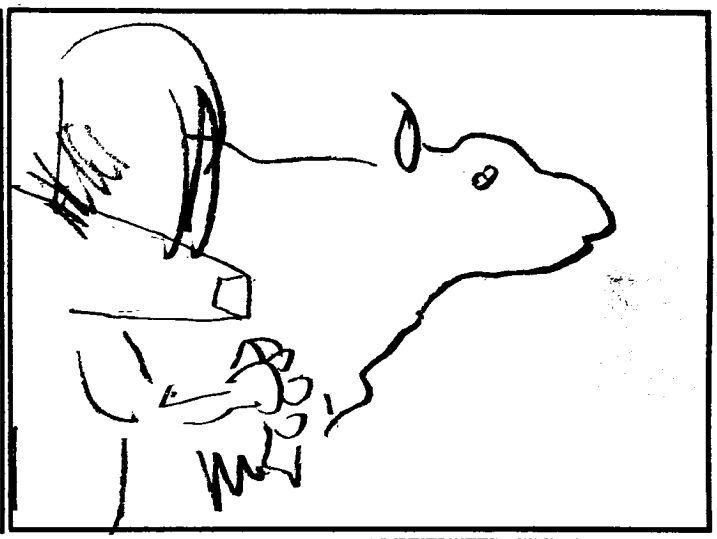


SIDE SHOT OF ASHANTI RUNNING WITH GAZELLES - R to L THROUGH FRAME

CAMERA STEADY – Behind ASHANTI as he RUNS with the GAZELLES – GLOBE SPINS

Long shot of ASHANTI running with GAZELLES. – CAMERA PANS AGAINST MOVEMENT

ASHANTI + GAZELLES running PAST as the Background flies by.

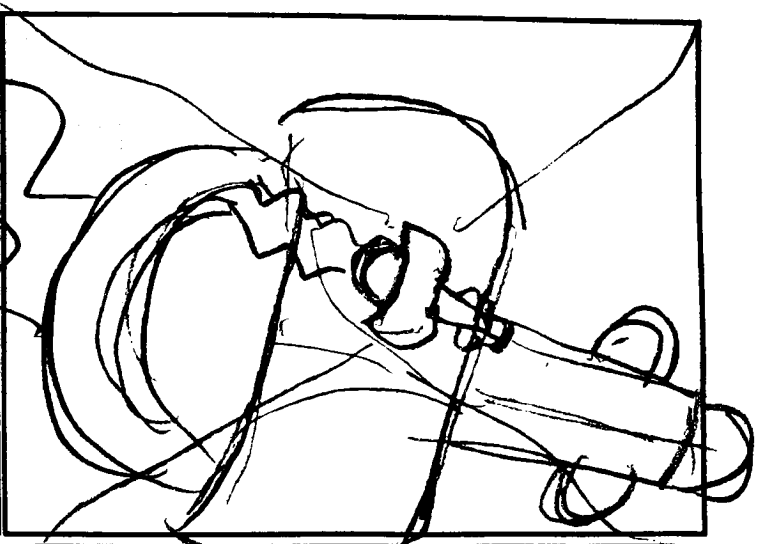


CUT TO ASHANTI drawing NECK + HEAD of GAZELLE on CAVE WALL

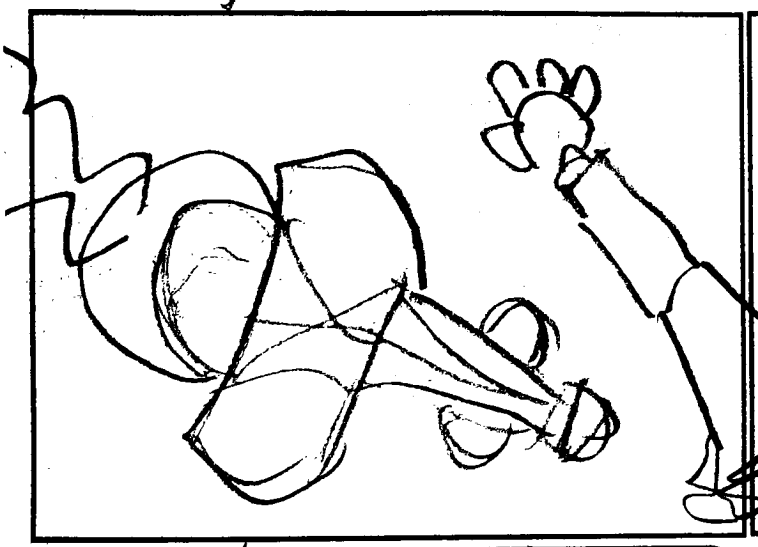
ASHANTI draws horns on GAZELLE – CAMERA OVER RIGHT SHOULDER

ASHANTI steps back from the drawing to observe the finished drawing

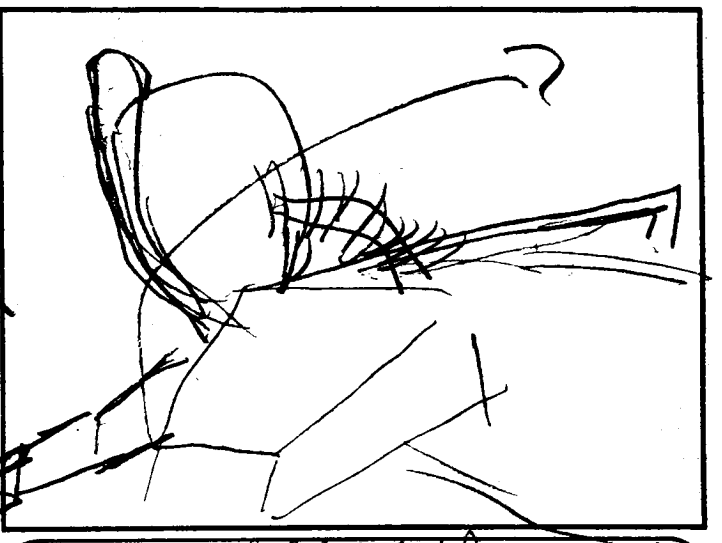
ASHANTI OBSERVES THE CAVE DRAWING - EXITS FRAME - LEFT



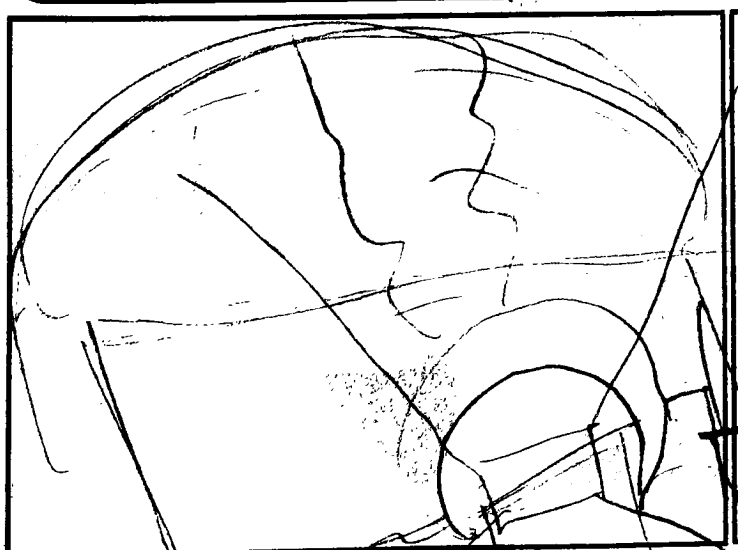
CAMERA ~~DOLLIES~~ IN ON MASK



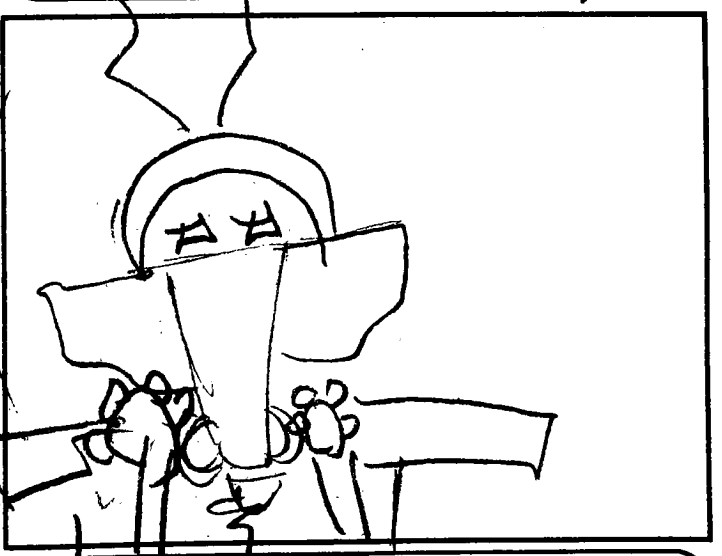
ASHANTI'S HAND ~~ENTERS~~ FRAME RT GRABS THE MASK



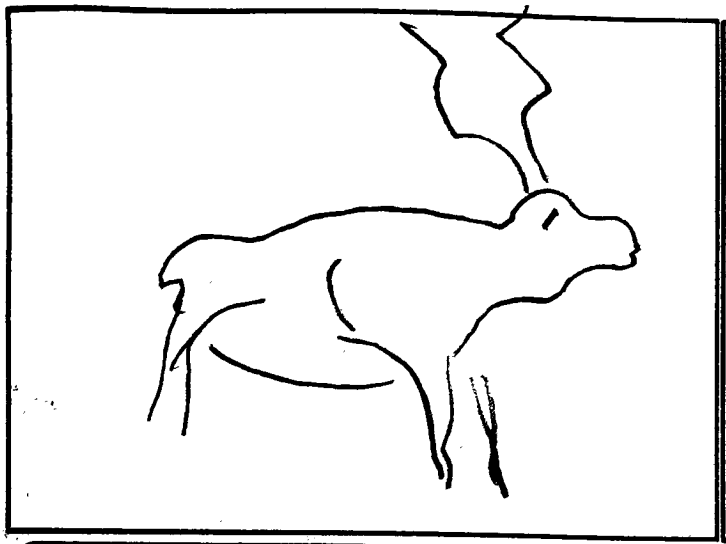
CLOSE UP OF ASHANTI LIFTING MASK FROM GROUND TO SHOULDER HEIGHT



~~THE~~ THE MASK IS RAISED TO CAMERA AS IF ~~TO~~ TO DAWN THE MASK

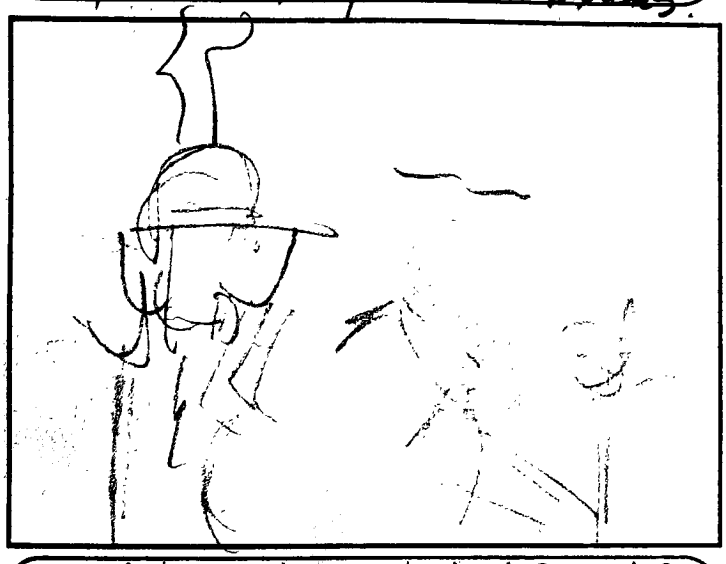


ASHANTI PLACES MASK ON HIS FACE AND THEN JUMPS INTO THE CAMERA

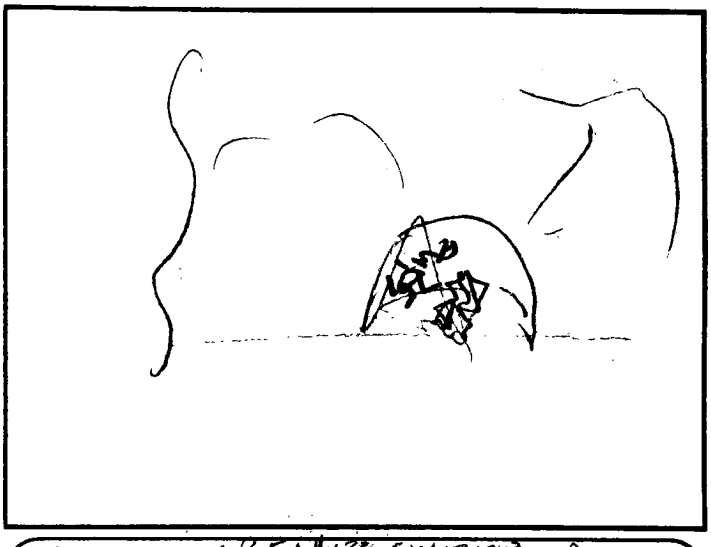


CAMERA dollies FROM GAZELLE drawing BACK past the REAL dead GAZELLE on spit over fire, as ASHANTI DANCES.

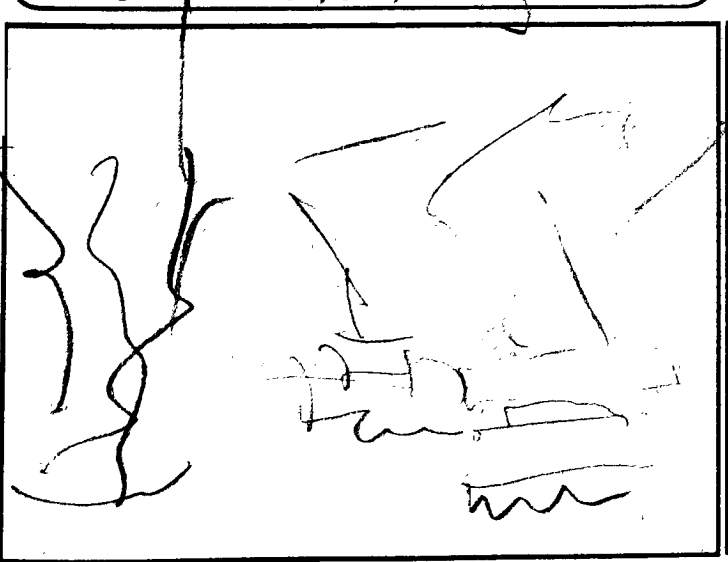
ASHANTI DANCES AROUND THE FIRE. Left to right



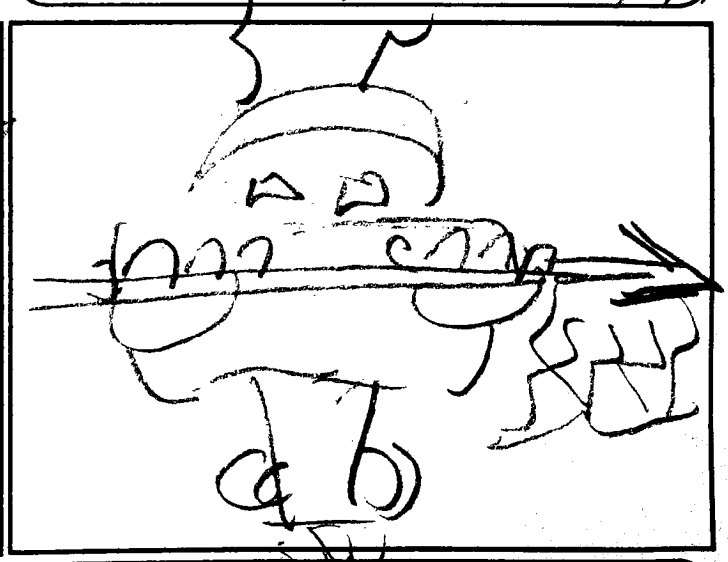
Ashanti dances behind GAZELLE. Behind him is the GAZELLE drawing



Long shot of ENTIRE EXTERIOR of CAVE with ASHANTI dancing inside - flickering light

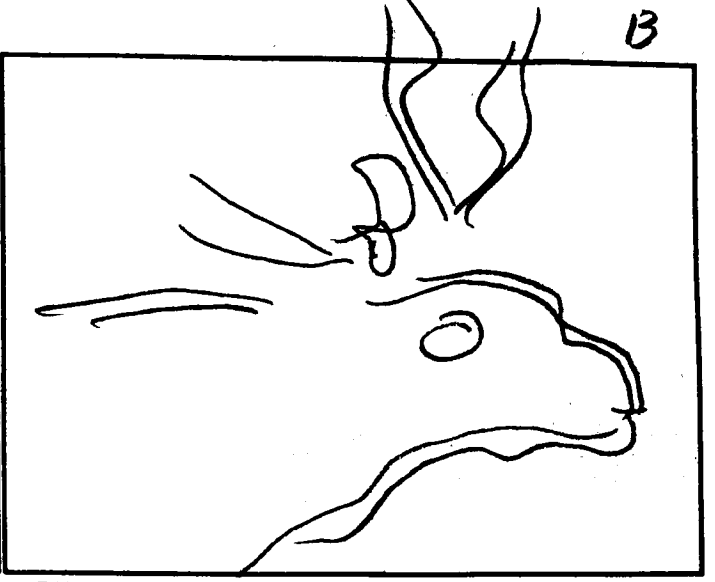


CAMERA STARTS CLOSE UP of ASHANTI'S FEET, PANS UP and ACROSS FIRE and ENDS ON ASHANTI'S FACE.

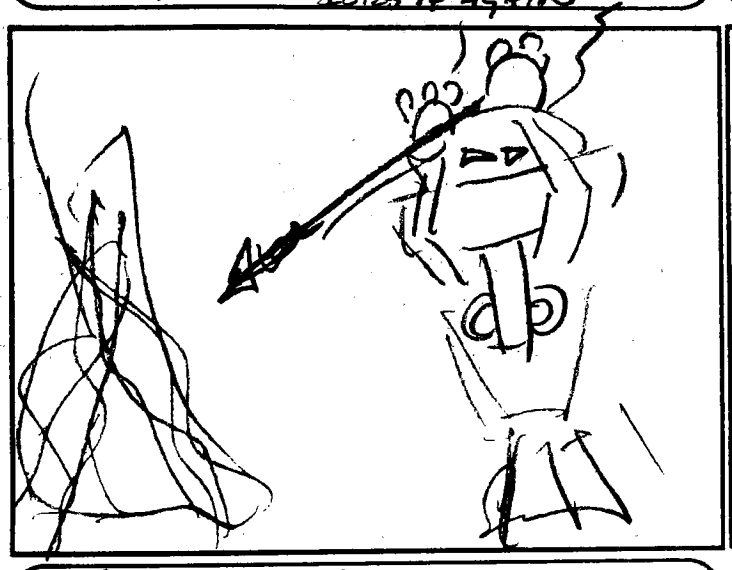


ASHANTI DANCES AROUND FIRE WITH SPEAR.

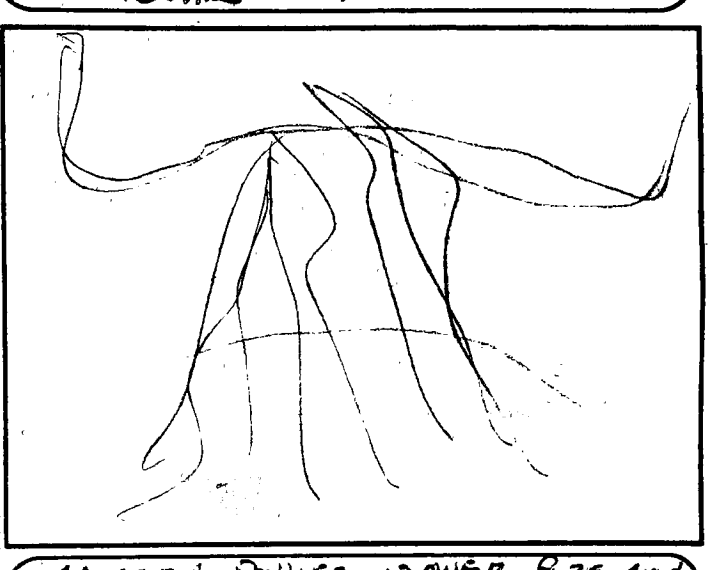
ASHANTI MAKES STABBING GESTURES WITH SPEAR THEN TURNS TO CAMERA LOOKS IT AGAIN



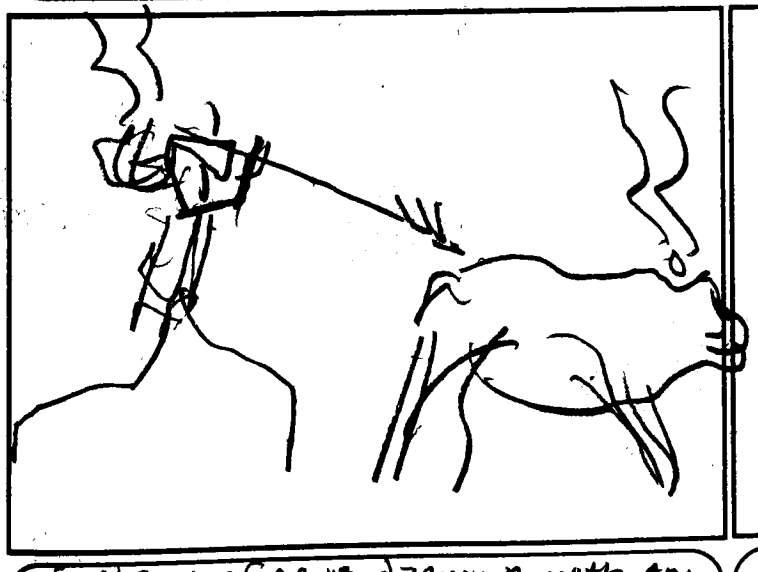
CLOSE UP OF THE DRAWING OF THE GAZELLES HEAD



ASHANTI THRUSTS SPEAR INTO GROUND. CAMERA PANS OVER TO FIRE



CAMERA DOLLIES UP OVER FIRE AND GAZELLE ON SPIT AND ENDS ON FINAL CAVE DRAWING



FINAL SHOT OF CAVE DRAWING WITH AN IMAGE OF A MASKED MAN ~~DEAD~~ SPEARING THE GAZELLE

FADE OUT
FEND