INTRODUCTION

Our group was presented with the challenge of identifying a film that Lydia Pappas, Assistant Director and Curator of Moving Image Research Collections at the University of South Carolina refers to as “one of my mystery films.” With even the metadata encoded on the film itself somewhat mysterious, we were compelled to seek multiple means of identification. These included: directing contacting Pappas with questions; attempting to date the footage by means of content portrayed in the film (car models, license plate numbers, cultural ephemera such as hats and beer cans), and analyzing the film stock. Ultimately we determined that what we had on our hands was a test film commissioned (by whom we still don’t know) to explore the effects of drunk driving, apparently by way of observing inebriated drivers on a controlled course.

The film begins with shot following a Cutlass down a dark road. A small child pops out on a tricycle, narrowly avoiding being hit by the car. The film stops; a new shot begins, again of the car going down the dark road. This is then very briefly interrupted with a shot of three men; one sits in a three-piece suit on a couch, and the other two are clothed only in shorts. One of the two holds a film camera. Following this interruption, the film returns to the Cutlass, which is marked with a number 1. Several men get in and out of the car. Then the action returns to shots of the Cutlass from the perspective of another moving vehicle. For several consecutive minutes it is difficult to make out what is going on; little is visible in the darkness besides the taillights of the Cutlass.

About four minutes in, another Cutlass appears, this time labeled with a number 2. A similar sequence follows. Then a number 3 car appears, and a number 4. Then the process repeats somewhat and returns eventually to car 1. 12 minutes in the car stops at what appears to be a barricade and backs up slowly. (One car has the 4 affixed upside-down; the reason for this is not clear.) 13 minutes in the car is parked; a
A man (the same man seen earlier on the couch?) walks by the car with his arm around a young woman. Two other men are present in the shot as well. All present enter the car (to which the upside-down 4 is affixed). Briefly a camera can be glimpsed attached to the top of the car. This car then drives up to the barricade area again, and, again stops. A human figure or facsimile thereof, apparently a remotely animated dummy, glides across the frame (approximately at the 14:30 mark). The child on tricycle reappears, briefly crossing the upside down-number-4 car’s path.

At this point a new reel begins, indicated by the reappearance of transparent leader. The first images this time are a dimly lit white wall (perhaps testing the lighting?). Then comes a brief (only several frames long) shot of a red baseball cap, followed swiftly by a brief shot of one of the men indoors. Then the entire ensemble is back outside, preparing to enter one of the cars again, apparently awaiting some kind of direction. Again we see a car with a movie camera affixed to its roof, but this time the car has a horizontal number 1 affixed, rather than the upside-down 4. One of the men holds the door for the woman as she gets into the driver’s seat. The car begins to move; almost as soon as it does, a new shot appears in which the car is once again stationary by the barricade, under the glare of a flashlight. Then, a following-shot again, and again, the boy on the tricycle (a dummy?) intercepts the car, which, this time, continues in motion. An extended “following” sequence commences. The car passes over the bridge whence a dummy had previously emerged (this time, sans dummy). Then again, now with dummy. Then, more following down the winding road. After several minutes of this, the car pulls over to the side of the road by a large high-wattage lamp, and one of the men comes to open the door for the woman, who emerges from the car. He puts his arm around her and they walk off, farther away from the road.

The man then guides the woman to the exterior of a building, where some sort of interview commences. She smiles and laughs while answering his (off-camera) questions, apparently in good spirits. This is followed by a close-up shot of a breathalyzer. The woman breathes into the breathalyzer for the man, who prepares her results, which are, oddly, captured on film but impossible to decipher from the shot.

Next: a set table in a minimally-furnished suburban home. A woman enters and places a percolator on
the table, and then lights candles. A closer shot of this follows, in which she appears to be addressing the camera operator. She fills the coffee cups, making intermittent eye contact with the camera. Then, she leaves and the room goes dark, only the glint of the metal percolator still visible in the darkness. Then, more leader.

Finally, this section of footage concludes with what we in the group came to call (somewhat ironically) the “party sequence.” Several women and men of various ages enjoy what seems to be an impromptu cocktail party in a (the same as prior?) suburban house. Dancing ensues.

In the shorter second section of car sequence footage, we are back on the road with car 2 (its number affixed right-side up, and vertically). Another “following” sequence. Car and camera then halt by the barricade on the bridge. The car backs up slowly, illuminated by the flashlight, alighting itself between the two barricades. Then, Car 2 is off, down the road again. This time the kid on the tricycle zooms past before the car can even stop. A close-up confirms that it is, indeed, a dummy. The “following” sequence picks up again. Car 2 traverses the bridge unimpeded by the boy on the tricycle. Car 2 pulls over to the side of the road where its predecessor had pulled over, where a man in shorts and a Polo shirt jogs over, apparently to adjust the camera. These steps repeat with a (new?) Car 4 (number properly affixed, this time). Then, we’re back with Car 1; again, the same sequence repeats. Then, a Car 3. A man helps a new young woman into the driver’s seat; the sequence repeats, terminating in Car 3 pulling over to the station by the side of the road. There the film ends.

**PROVENANCE & CATALOG**

Unfortunately for us, University of South Carolina was not able to provide us with any useful information regarding the provenance of the film. We contacted Lydia Pappas (Assistant Director and Curator of the Moving Image Research Collections at USC) and asked if she had any idea how the film managed to get into their collection. This was her response:
Now you guys really do have one of my mystery films. Every year I go through the vaults and do a shelf check and usually some up with items that have no information in the catalogue or database. These go into a pile for our student interns to work on called the Mystery film collection. Sadly there really is no information on this film that we could find at the time. It could have come from any of the collections that we have at MIRC but there wasn’t enough to identify as belonging to any one particular collection and so it has gone into the general collection of random films. I suspect that it might have come from one of the local tv holdings but I can’t be sure.

It seems as though the department has not devoted a great amount of energy to determining the nature and origins of this particular film. The description found in the Moving Image Research Collections (MIRC) database was equally unenlightening:

Color silent film of a car sequence showing the back of a car as it travels along a road at night. this sequence is repeated several times, and a number can be seen on the back of the car. The car is a 1970s convertible (cadillac?), powder blue with a white/cream top. A man and a woman are seen getting into the car in the second reel and at the end a younger girl is shown getting into the car then out of the car and is interviewed and then breathalysed. 2 reels - local television?

This description, written by one of MIRC’s student interns, bears the hallmarks of a fairly superficial viewing, and is therefor not too helpful to us. We followed up with Lydia to see if she was aware of any particular collection connected to research studies done in association with University of South Carolina, she has yet to get back to us.
IDENTIFICATION METHODS

I. License Plate:
Among the first methods used to date the film was a comparative search of the license plate visible on the car featured throughout most of the film. Though sometimes virtually indistinguishable, there are certain moments in the film at which both the design and the number of the plate can be easily determined. Preliminary searches of the exact plate number quickly came to a dead end as it was ultimately impossible to conduct such a search without paying for a database. However, a database with images and brief descriptions of North American license plate designs from 1969 to present allowed us to distinguish the design of the plate in the film.1 Knowing that the film had been provided by the University of South Carolina allowed us to fairly rapidly identify the plate design by limiting our search to South Carolina’s plate design history, which led us to one which was in use in the late 1970s to celebrate the bicentennial of the United States.2 Determining this design match was largely due to the presence of a bright red tree in the middle of the plate, with blue numbers on either side; this plate is the only in South Carolina’s history which features such a tree. The database’s description of the license plate notes that the design was issued in 1976 and discontinued in 1980, which gave us an initial range of dates with which to narrow our search.

Upon closer inspection of the license plate in the film—notably at points in which the

1 http://www.15q.net/
camera was zoomed and focused in on the plate, and in which the main light source was not producing a distracting glare—shows what looks to be a more specific registration for the year 1977, which both coincides with our initial date range and with subsequent findings, more on which will be discussed below.

II. Breathalyzer:

The other element which aided in dating the film was the breathalyzer machine featured in one scene, presumably to measure the BAC of one of the test subjects. Simple Google searches of breathalyzers in use between 1976 and 1980 turned up a significantly similar (if not exactly the same) model called the Breathalyzer 900a. A timeline of breathalyzer technology provided by the National Law Enforcement Officers Memorial Fund indicates that this model was initially manufactured by Smith & Wesson from 1969 to 1984, and subsequently sold to National Dräger Corporation for manufacture from 1984 until it was discontinued in 1997. Though this broad range did fit within our earlier identified date range, a more specific breathalyzer-related discovery was ultimately more fruitful: during the scene in which the woman’s BAC is tested, the result is recorded on a small card, which, though hard to distinguish, presumably includes the test subject’s name, the date on which the test was administered, and the individual who administered the test. A more forensic

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examination of this card—which included enhancing the frame at which the card is displayed in an attempt to reveal its information—appears to indicate a test date during the year 1977. This information is quite difficult to read (and in fact the two names present on the card are nearly impossible to distinguish), but the date, if indeed 1977, would directly correspond to our earlier findings on the license plate.

III. Car:

Furthermore, the car used in the footage is an Oldsmobile Cutlass. It was manufactured in 1976 or 1977 and may be a Supreme and/or a Brougham version of the Cutlass, but the footage does not clearly show the details that differentiate these varieties. It is powder blue with a white back part of the roof. Looking through information about this model, we found various allusions to its presumed popularity in 1977, but the sources were not conclusive or sufficiently credible. Below is a an excerpt about the Cutlass from Motor Trend’s 1977 New Car Issue:

![Image of the Oldsmobile Cutlass]

The information we got from Lydia Pappas assumed the car might be a 1970s convertible Cadillac (but “cadillac” is in parentheses with a question mark). We found no evidence to support the theory that it is convertible, but the white part of the roof is understandably misleading. The assumption that it might be a cadillac most likely stems from the shape of the tail lights, which are reminiscent of many cadillacs of the time. Not having specific interest in cars, and the markings on the vehicle being unclear in the footage, the search seemed to be hopeless when it first started. Exploring various car brands and their multitude of makes and models quickly became overwhelming. There were many that came close, such as the Pontiac Bonneville 5th generation, the Cadillac DeVille or the Cadillac 1973 Coupe de Ville, and the Buick Special 1976/1977—but none of them fit. In the end, a member of our team reached out to a friend of a friend who showed his father, a vintage car enthusiast in Iceland, cropped photographs of the taillights and front lights of the car. He responded quickly that the car was an Oldsmobile, and most likely a Cutlass. With this lead we were able to narrow the search considerably and conclude the type relatively specifically.

There are a number of other elements within the footage that may serve to contextualize, place and date it, but which would rely on specific knowledge similar to that of the car enthusiast to identify. These include the fashion, decoration, household items and furniture in the “party” sequence. If there are specific identifiers in these elements, they may well escape the untrained eye, as they have ours. The fashion is roughly recognizable in terms of a decade, and the same goes for the decor. Provided we contacted people knowledgeable about these elements, there is potential for more specific information about these circumstantial elements.
IV. Beer Can:

During the party sequence of the film, at 24:40 in, a pair of Budweiser cans sit on a nearby table. What can we learn from this can? While we had already pinned the film’s date as likely from 1977 from the sticker registration decal on the South Carolina license plate, their U.S. Bicentennial Plate from 1976-1980, we felt it prudent to try to use all clues present to further confirm the film’s probable date. The Budweiser cans feature the now dated pull-tab can opening system. Patented in 1963 by engineer Ermal Fraze, the pull-tab method replaced the need for using a church key opener. A beer opened with a church key opener will have a triangular opening leftover from the church key’s pressure. We can determine this is the pull-tab by visually analyzing the cans top opening as rounded, yet lacking the modern press button cans fixed tab.

First, here is a still from the film showing the can in question:

Next here is a clearer photo of the 70’s pull-tab generation Budweiser can:
Lastly, here is today’s modern Budweiser beer can with the press button tab:

We next thought to find Budweiser commercials from this period to see if the cans match our party beer can. We found a Budweiser commercial from 1978 and analyzed the can from the YouTube video. Here are two stills of the beer can from the commercial dated from 1978, apparently of the same generation as our suspected 1977 can. The full commercial can be found here: https://www.youtube.com/watch?v=XR6uIpqMMus.

This can from the commercial looks to be the same type of can from our film. This finding helps us to date the film from around the same period of the 1978 commercial.

V. Hat:

Our next clue to explore was a baseball cap found in one of the film’s scene. A member of our team claimed that this was a
Clemson University hat. Clemson University is located in Clemson, South Carolina which matches our general locale. However, some members of our teams claimed that it could in fact be a South Carolina Gamecocks hat. We turned to Google to find images of both Clemson and Gamecocks hats. Attached are some of our finds, both of Clemson and Gamecock’s hats.

First a Clemson hat: 

Next a Gamecocks hat: 

Both feature a prominent C, but the font of the C is markedly different on the Gamecocks hat and the hat from our film is orange which is Clemson’s official school color. While after this research, we were fairly certain it was a Clemson hat; we thought we should reach out to Clemson’s library to see if they would confirm if it was a vintage Clemson hat. We wrote:

Dear Clemson,

I am a graduate student at NYU and am looking to identify a baseball cap from a 1970s film.

In your professional opinion, is this a Clemson hat?

Thank You
We quickly got a response from Clemson:

Thank you for your inquiry about the baseball cap. I also checked with our Athletic Communications Dept. and we both agree that it is a Clemson hat. Can you please let me know what movie it’s in?

To which we replied:

On behalf of our team of archival researchers at NYU, thank you dearly for checking with the Athletic Communications Department to corroborate our query. While some of us on the team were certain it was indeed a Clemson Tigers hat, a few others on the team contended that it might in fact be a vintage logo from your bitter rival, the South Carolina Gamecocks. Thanks to your generosity of spirit, we now know for sure that it is none other than a rather handsome vintage Clemson Tigers hat.

Nothing would please me more than to share the origin of the image. However, we took a vow that we would not share any information about the film due to copyright clearance issues. I hope that you understand. If it puts Clemson's heart at ease, the film is silent and will most likely never see the light of day outside of this classes exercise. From the bottom of our hearts, thank you.

The culmination of the aforementioned research indicates to us that this film was more than likely made in 1977, and most certainly between 1976 and 1980.

VI. Film Stock:
In the case of SCAR_WUnknown_CarSeq, the information yielded by inspection of the film stock was minimal and did not ultimately assist in identifying the film. Nonetheless, the metadata discovered was useful to compile as a means of more completely describing a fairly mysterious film. Perhaps another researcher will be able to fill in the missing lines in the future.

In addition to identifying the film stock, we also inspected the film for any other metadata that might suggest origin or date, in particular noting text written on the leader and runout of the film, visible at several moments over the course of the film.

To the best of our knowledge, the film stock in this sequence is Ektachrome 16mm silent reversal film. First, we noted that, in addition to the fact that the film is literally silent, there is no magnetic strip. We also observed that the film has sprockets on both sides, eliminating the possibility that it might be 8mm or Super 8 film, both of which have sprockets on one side only. The quality of the image and the size of the grain also indicates that the film is not 35mm. It’s also very unlikely that a study or otherwise non-professional production would be shot on 35mm. Finally, a 16mm camera can be seen attached to the roof of the car in several shots, as well as in the hands a shirtless man in a brief shot early in the film.

According to the National Film Preservation Foundation’s *Film Preservation Guide*, “In a reversal original, the film edge is black; in a print made from a negative, the edge is usually clear.” The film in question has a black edge, therefore it is almost certainly reversal film. Because reversal film is more cost effective, it was frequently used for amateur projects, as well as for news and by educational institutions. This fact contributed to our tentative conclusion that

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5 [http://www.brianpritchard.com/16mm%20Identification%20Version%201.02.pdf](http://www.brianpritchard.com/16mm%20Identification%20Version%201.02.pdf)
7 Ibid., 10.
the film was part of a study on the behavior of drunk drivers sponsored by the University of South Carolina.

Though we were ultimately unable to date the film, we did discover some useful information in the course of the attempt. Because the edge was only partially visible in the digitized copy, we reached out to Lydia Pappas, the Assistant Director and Curator Moving Image Research Collections at University of South Carolina. According to Ms. Pappas, the film had “No date codes – sorry – says Eastman S*AFETY on the edges but no codes.”\(^8\) As a result, we weren’t able to determine the date the film was manufactured. By referring to an edge code chart\(^9\), all we know that the film was made in Rochester, the only US factory for Eastman Kodak film. Finally, because the edge reads “Eastman S*AFETY,” there’s no date code, and it is a reversal stock, it is likely that the film is Ektachrome.\(^10\)

Text can be read clearly on the leader and runout of the film. At 15:29 the leader reads: “HEADS USC ROCC #4 41081” backwards. At 24:25 and 24:34, the film reads “TAILS USC ROCC #4 41084.” We speculated that “ROCC #4” might refer to either the medical research group Research on Care Community\(^11\) or the community organization Richland One Community Coalition\(^12\). However, after further research into both groups, the acronym remains unidentified.

Based on our research into the visible license plate, the provenance of the film, and the content, it seems very likely that “USC” stands for University of South Carolina.

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\(^8\) Lydia Pappas, email with author, October 20, 2017
\(^10\) http://www.paulivester.com/films/filmstock/guide.htm
\(^11\) An initiative of the Association of Medical Colleges, of which the University Of South Carolina Medical School is a member. https://www.aamc.org/initiatives/rocc/about/
\(^12\) “The Richland One Community Coalition (ROCC) (pronounced “rock”) is an organization comprised of schools, community agencies, businesses, groups, and individuals who share an interest in the well-being of youth in Richland County School District One.” Unfortunately, according to their Facebook page, the ROCC was founded in 2004. https://www.facebook.com/pg/RichlandOneCC/about/?ref=page_internal
Having made ourselves fairly certain of the film’s date, we used this information to narrow our search for the exact research study being recorded. Beginning with the University of South Carolina’s own libraries and archives, we searched for studies on drunk driving that were conducted circa 1977. We made multiple attempts at search-refining by searching specifically for controlled, closed-course driving studies; studies measuring the effects of BAC on driving performance; studies measuring the effects of alcohol on reaction time while driving; and studies measuring the effects of alcohol on driving at night. As these searches did not produce sufficient results, we expanded our efforts to New York University’s own online databases as well as general Google searches. Our Google searches were by far the most productive for these purposes: initial searches turned up a number of publications from circa 1977 which stemmed from studies on alcohol’s effect on various aspects of driving performance. Access to these studies—whether by public availability or through NYU Libraries—allowed us to scavenge their bibliographies for potential leads. But alas, these searches were no more than a rabbit-hole leading us deeper and deeper into the world of 1970s drunk driving research, all of which ultimately had no reference to South Carolina nor to any distinguishable and unique aspect of the film. Numerous hours having been spent rummaging through these publications allowed us to determine that no substantial research findings were ever published from this study. However, this research did ultimately and inadvertently give us some very useful context in which we can confidently place this film; this context will be further discussed below.

CONTEXT: DRUNK DRIVING RESEARCH CIRCA 1977

Not having been able to identify the exact study this film is depicting, we have instead prepared a brief history of drunk driving research as it both led to and proceeded from 1977. We hope this
context will serve as a framework in which the film can be placed in lieu of a more specific identification.

Though scientists and scholars had been studying the effects of alcohol on human behavior long before, it wasn’t until the 1960s, with a push to regard road incidents related to intoxication as public health issues, that major studies, surveys, and legislative actions began to surface in an effort to dampen a growing crisis. Even when conducted solely through academic institutions, research and legislative enactment were often symbiotic in nature; in fact, the late 1960s saw a boom in research sponsored by a US government in the midst of forming its National Highway Traffic Safety Administration (NHTSA), which was a valuable asset in pushing legislation through studies from within. With its dawn in the late 1960s—and even before its official establishment in 1970—the NHTSA had already published the most comprehensive report on drunk driving in the United States, providing evidence of the astoundingly high percentage of fatal car crashes in which alcohol was a key player. Though important for myriad reasons in the world of transportation, what seems to be one of the report’s most important effects is the essential step it made in forging widespread acceptance of the dangers of drunk driving, bringing its consequences to the forefront of American consciousness.

Much of the research being conducted from the 1960s to the 1990s took the form of survey or statistical analysis. While statistical analyses like the NHTSA report might have been limited to examining the blood alcohol content of deceased persons involved in crashes, roadside surveys became a significant method for generating broader sets of data on living—and unsuspecting—drivers on the road by adhering to the random sampling method. In a report by the National Institute on Alcohol Abuse and Alcoholism, it is noted that national roadside

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14 Ibid. 61.
surveys were conducted in 1973, 1986, and 1996, in which drivers were randomly stopped between the hours of 10:00pm and 3:00am on Friday and Saturday nights and tested for blood alcohol content. These surveys were meant to point to larger trends in drunk driving prevalence throughout the country, both for the purposes of forming new preventative programs and legislation, and for measuring the effectiveness of programs and laws already in place. Studies like these were made possible by the advancements made in breathalyzer technology between the 1970s and 1990s, especially following the introduction of electronic breathalyzers by the end of the ‘70s, which made field-testing of BAC by authorities both faster and more accurate.

A third type of study also gained prominence during this period: closed-course driving studies. Where previous data had been collected post-incident and/or by random survey, the closed-course studies aimed to bring a control factor into play in an attempt to illustrate and measure the abilities of drivers at specific BAC levels, the results of which were effective in both setting a national BAC limit and for training authorities to detect drunk drivers on the road based on commonly exhibited characteristics. These studies put selected participants behind the wheel at various levels of intoxication and set them on a closed-course—replete with stops, turns, and obstacles—and researchers measured factors such as speed, steering, passing, following, reaction time, and overall judgment. In some cases, participants would incur penalties upon striking hazards or obstacles, the accumulation of which was used by researchers to measure an overall level of impairment at a given BAC level. The importance these test results lies within the nature of the tests themselves; as Valerie J. Gawron and Thomas A. Ranney observe, “Since real

19 cars are used, closed-course studies have high face validity...[and] researchers contend that studies in which subjects drive real cars are directly generalizable to real-world driving because of the comparable task complexity and response requirements.”¹⁹

This—the controlled, closed-course driving study—is what we believe the film at hand to be depicting. The repetition of the driving course, by various participants, under the influence of alcohol, being tested for blood alcohol content, all have led to this conclusion. However, as reference to the University of South Carolina, or to South Carolina in general, was not prominent in our research to identify a specific study, we have determined that no literature was ever published about this study; that the published study has since been buried deep under the wealth of drunk driving studies available online; or that the study has not been digitized, thus rendering it inaccessible for the purposes of this project.

CONCLUSION

Though no specific identification was made, we hope this report might serve as a springboard for future research regarding this film. There are certain aspects of the film which we felt might have been considered with more time available to us, but which are as of now left to speculation. For instance, at various points throughout the film, a few frames of seemingly unrelated footage appear: a party; a woman setting a table; someone’s desk. Our superficial reading of these moments is that the footage is raw and unedited, and that someone perhaps picked up the camera at various points on the film roll and recorded their surroundings. But again, this is only speculative, and a more in-depth reading of these instances might serve future researchers well. Additionally, future research might involve speaking with librarians and/or historians at the

University of South Carolina—specifically if they have knowledge of past medical or sociological research being conducted at the university—to see if a more specific study might be pointed to. However, this was not feasible within the timeframe of the report at hand. Regardless, we hope to have provided observations, evidence, and context from which future examination might benefit.

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