

**AC 2008-796: CHINATOWN: INTEGRATING FILM, CULTURE, AND ENVIRONMENT IN ENGINEERING EDUCATION**

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# *Chinatown*: Integrating Film, Culture, and Environment in Engineering Education

## Introduction

*Chinatown*, a commercial film produced in 1974 by Robert Evans, directed by Roman Polanski and based upon the academy award-winning film original screenplay by Robert Towne<sup>1</sup>, is a prime example of a film that may be studied and used in the liberal arts curriculum within engineering education to convey the complexity of the human condition and the human context of engineering choices.

As an art form, film has inherent value in: the richness of the human experience captured in it that is shared by its audience; the pleasure and insight the experience of viewing film brings to the audience; the creative integration of narrative, composition, perspective, and technique commanded by a team of producer(s), director(s), writers, actors, cameramen, film editors, set designers, etc.; the cultural moment it expresses and reveals as it is created and produced; and, its staying power as it is viewed, experienced and interpreted over time. Film enables this artistic and technical collective to transform moving image, creating symbols and exploring themes and myth which mirror other art forms, all of which depend upon technologies (writing, painting, design, musical instruments), although film's scale and dependence upon complex and costly technologies are unique among artistic productions. Indeed, because the production of a major film is so expensive—some reaching to the \$100 million mark and beyond—without the potential for mass appeal, commercial films are rarely produced, though smaller scale independent “art” films are not tied quite as much to this factor. Without sufficient movie goers, (and today without DVD and pay per view cable viewings, product placement ads within the film itself, etc.) large scale commercial films could never be made. Given this requirement of mass media appeal and what it means for production cost (e.g., the need for highly paid “stars” who can bring people to the film, high quality sets and original musical scores, etc.), film inevitably must tap into cultural themes which can attract a large audience. In any case, as with all art, film productions inexorably are an expression not only of the individual artists or groups of artists who create them, but also of culture—historical moment, place, values, worldview, etc. As such, it may be used in the education of engineers and those in other disciplines.

This is not to suggest, of course, that film needs to be justified as a utilitarian tool of any sort, as a device for conveying specific, relevant public messages, or as a vehicle for education in the broadest of sense, and as it applies to engineering education specifically. Nevertheless, as will be discussed, *Chinatown* and films like Akira Kurosowa's 1975 film *Derzu Uzala* and many others which could be cited, can be integrated within a liberal arts curriculum to create new ways of seeing and understanding people and their contexts, and they can be particularly valuable to the liberal arts component of an engineering education curriculum. With regard to engineering education, properly selected films can enable engineering students to explore human-environment interactions, the transformative role that engineers and their products and actions have upon people, place and the long-term future of the Earth, and the contextual, human, and ethical dimensions of engineers as professionals, citizens, and individuals.

## ***Chinatown*: Context, Storyline, Themes**

*Chinatown* was released in 1974 against the backdrop of the Vietnam War and the Nixon-Watergate conspiracy scandal.<sup>2</sup> Confused, complex and cynical emotions pervaded the minds of the American people at the time. In this instance, as in life, so in film. Twists and turns of slowly revealed, often contradictory information lead slowly but inevitably to an awareness of the dark web of politics, economy, corruption, perspective, culture and values. Set in c. 1937 Los Angeles in the midst of a drought, *Chinatown's* story is equally dark, twisted and confused. Its horrible, inevitable truths of human evil, greed, frailty and blindness, and the conflict of nature and culture<sup>3</sup> (all reminiscent of Conrad's *Heart of Darkness*), are revealed only after going down false trails, hitting dead ends, and coming to incorrect, premature conclusions.<sup>4</sup> The 1970s also saw the flowering of an environmental consciousness seeded by Rachel Carson (*Silent Spring*) and many other scientists, humanists, social scientists, educators and grassroots activists. The first Earth Day was in 1970. Public environmental concern and media attention to environmental abuses by developers and governments grew dramatically afterward, and along with it the creation of environmental laws and expectations of accountability, as well interdisciplinary education and training programs to promote environmental awareness and skills. By 1974, humankind's destruction of Nature and demands for changing this path were heavily on the public's mind.

*Chinatown* is a *film noir* genre detective story seen from the viewpoint of a hard-boiled, sardonic private investigator, J.J. (Jake) Gittes (Jack Nicholson) who learns "to see" only after failing to perceive and comprehend the world he investigates and inhabits.<sup>5</sup> This failure leads to disastrous consequences. What we as an audience come to know is learned only as Gittes slowly but inexorably learns, in what Eaton has called a "gnostic initiation," a "*rite de passage*."<sup>6</sup> We eventually come to understand that Jake is blind like Oedipus, and as Oedipus is the source of the plague in Thebes, Jake is the source of disaster in Los Angeles and its Chinatown.<sup>7</sup>

Jake is an honorable man determined not to take unfair advantage of his emotional clients, advising them to "Let sleeping dogs lie"<sup>8</sup> and not go through the cost or turmoil of an investigation. He is engaged in searching out common marital infidelity and other "matrimonial work, his self described 'métier'."<sup>9</sup> He is a former L.A. detective who left his job working in Chinatown for the District Attorney under circumstances that are unclear, but we learn it is because of the "bad luck"<sup>10</sup> he found there: "I thought I was keeping someone from being hurt, and actually I ended up making sure they were hurt."<sup>11</sup> He is hired by a woman (Dianne Ladd, who also plays Ida Sessions) posing as Mrs. Evelyn Mulwray to investigate an extra-marital affair of her husband, Mr. Hollis Mulwray (Darryl Zwerling), former co-owner (with Noah Cross) of the municipal Department of Water and Power, where as the film opens he is Chief Engineer.

After trailing Mulwray, Jake "successfully" discovers what he believes to be the affair between Mulwray and a young woman ("Katherine," referred to as "the girl" throughout most of the film, and played by Belinda Palmer) after trailing Mulwray. However, before uncovering the supposed affair, he sees Mulwray at a public meeting to discuss new dam construction for water storage in drought years, like the one L.A. is experiencing throughout the film's timeframe. The dam is needed for the ever expanding desert city. Mulwray states firmly that given the "Van der Lip

Dam” disaster which killed over 500, he will not build “yet another dirt-banked terminus damn with slopes of two and one half to one, one hundred twelve feet high, and a twelve-thousand-acre water surface,” because it “won’t hold,” and “I am not making that kind of mistake twice.”<sup>12</sup> Farmers attending the meeting accuse Mulwray of stealing water from the Valley, ruining grazing and starving livestock and hence their livelihoods. Jake subsequently trails Mulwray to the L.A. Riverbed and to the beach at Point Fermin, leading Jake to assert to his “operatives: Walsh (Joe Mantell) and Duffy (Bruce Glover) that Mulwray has “water on the brain.”<sup>13</sup> The pictures Gittes takes of Mulwray and the young woman in a rowboat in Echo Park and at the El Macando Apartments seemingly exposing the affair hits the papers with tawdry headlines: “DEPARTMENT OF WATER AND POWER BLOWS FUSE OVER CHIEF’S USE OF FUNDS FOR EL MACANDO LOVE NEST;” “J.J. Gittes Hired by Suspicious Spouse.”<sup>14</sup> It turns out, however, that the person who employed him was not Mrs. Mulwray (Evelyn), but an imposter, an actress—Ida Sessions—who was hired, it is later revealed, by Evelyn’s father, Noah Cross (John Huston) to set up Hollis and undermine his standing in the community in order to promote Cross’ land grab in the Valley and secure a bond issue for the dam Mulwray opposes.

However, with the publicity, the real Mrs. Mulwray (Faye Dunaway) appears with her lawyer to challenge the public humiliation she and her husband have experienced, and informs Gittes she is filing a lawsuit. Now angry, having been used by someone to undo the Chief Engineer, and facing a potentially costly law suit, Jake understands that things are more complicated than he first thought. With a greater personal stake in the case, he begins to investigate in earnest and with a heightened state of emotion. When Evelyn’s husband is found dead, drowned in the Oak Park Reservoir, Evelyn, thinking he committed suicide as a result of the scandal, does a turnabout, hiring Jake with the dual intent, initially, of dropping the case quickly but creating a record of having employed him in order to cover the whole matter. When it is revealed that her husband was murdered, Jake becomes suspicious of Evelyn, thinking she might have killed him. When it is subsequently revealed that Hollis was drowned in salt water, Jake concludes that he drowned in the ocean and his body was subsequently moved to Oak Park Reservoir (freshwater), and decides his theory about Evelyn had been wrong.

As Jake’s investigation continues, he begins to uncover a different motive for murder besides passion or revenge. His investigations lead him to the corrupt and ugly scheme created and manipulated by multi-millionaire Cross to divert water to the ocean, manufacturing “his own flood...to cause a contrived shortage,” “to construct with a new bond issue a second dubious dam as part of a conspiracy to corner and then develop the farm lands of Alto Vallejo.”<sup>15</sup> Accompanying the water diversion is a scheme to drive farmers off the land so it can be bought at a fraction of its value. In the process, great damage is done both to the land and to the livelihoods of those who inhabit and own it, water is intentionally wasted—pushed out to sea through multiple channels presumably over a sufficient number of days to impact L.A. and farmers alike—irrigation ditches and water tanks are blown up and wells are poisoned.

Along the way to these revelations of Cross’ plan designed to greatly expand L.A.’s boundaries, Jake learns that his first conclusion, that Cross was simply trying to bring water to the Valley to grossly inflate the value of land he bought on the cheap, was only partially correct. He ultimately learns directly from Cross that his scheme has the bigger goal of growing the city: “Either you bring the water to L.A.—or you bring L.A. to the water” by incorporating “the Valley into the

city so water goes to L.A. after all. It's very simple."<sup>16</sup> Further, the lengths Cross goes to and the methods he uses—including the murder of his son-in-law and former partner, Chief Engineer Mulwray—is not designed to gain extra wealth alone. As Cross offers in response to Jake's question, "What can you buy that can't already afford?" Jake learns that it is "The future, Mr. Gittes—the future."<sup>17</sup> Jake finally sees that scale of Cross' "vision" of *Water and Power*, his megalomania, his obsession with the possession of all things that are within the reach of his grasping hand and beyond it.

In the process of his investigation, the inherent violence underlying this story and the human relationships depicted in the film are captured with graphic precision in another scene (the murder of Mulwray is not shown on screen though his body pulled from the Reservoir, his eyes agape). This largely unseen but ever-present undercurrent of violence is made transparent when one of Cross' operatives, the "Man with the Knife" (as identified in the film credits, played by Director Roman Polanski), accompanying ex-Ventura County Sheriff Claude Mulvihill (Roy Jenson), sticks a knife into Gittes' left nostril, and answering his own question "...you know what happens to nosy fellows? ...They lose their noses,"<sup>18</sup> slits its wing, blood spurting everywhere. Though cumulatively there are numerous fights and other acts of violence in the film, Polanski himself argues, that "[a]s usual, I conveyed more violence than was actually seen."<sup>19</sup> (Polanski, 1984 cited in Eaton, 1997).

If this ugly and violent scene captures the rapacious horror extending like waves outward from Noah Cross, this violence is matched by another plot line in the film, the relationship of Cross and Evelyn, and the related relationship of Jake and Evelyn. Jake becomes entangled with Evelyn even with his many suspicions of her, first doubting her story then accepting it, only to take another path with yet another conclusion. The tension between the two ultimately emerges with Jake and Evelyn sleeping together. Interrupted in their post-coital, smoke-filled haze by a phone call prompting Evelyn to leave, Jake follows Evelyn to a house where Evelyn's Asian servants attend to the "girl" with whom Hollis had supposedly been having the affair. Jake confronts Evelyn, and she tells him that the young woman is actually her (younger) sister. Jake, who has seen such convoluted family relations many time before in the course of his "matrimonial work," is not terribly surprised and initially accepts this explanation.

As we see in the course of Jake's investigation, Cross has an intense interest in finding Hollis' girlfriend. This is first explained to Jake by Cross as his desire to help catch Hollis' murderer and his interest in helping the girl if he can, since Hollis was fond of her. As such, he seeks to employ Gittes (who he constantly and consciously calls "Gitts" to belittle him and ignore his identity) to "Just find the girl," as he repeatedly says, emphasizing his obsession and the young woman's youth. The true story of Evelyn's "sister" is revealed later in a disturbing confrontation between Jake and Evelyn, during which he accuses Evelyn of having been involved in Hollis' death ("You were jealous, you fought, he fell, hit his head—it was an accident—but his girl was a witness."<sup>20</sup> He demands to know who the girl is: "You don't have a sister,"<sup>21</sup> Jake says. In the brutal scene which follows Jake slaps Evelyn across the face repeatedly as she alternates identifying the girl as her daughter, then her sister, then her daughter, then her sister, and finally "She's my daughter *and* my sister."<sup>22</sup>

At last, the link between Cross, Evelyn, and their daughter/sister/granddaughter is revealed, and with it the link between the rape of the land, incest, and murder is made. If one can rape one's own daughter, abuse and kill people, then abusing and destroying the land and stealing water is hardly much of a stretch.<sup>23</sup> These behaviors emanate from the same source, the lust for power and control, the hopeless desire to control Nature—indeed the universe—to impose one's will upon it, to stretch one's hands upon the water like Shelly's Manfred and calm them, or as with Cross, to create turbulence, a perverse Noah indeed.

The film's dénouement presents itself as a fatal inevitability. Jake tries to help Evelyn, but like his previous experience in Chinatown, with his return to this locale everything goes tragically wrong. He assists Evelyn and her daughter to escape from the police, Lieutenant Lou Escobar (Perry Lopez) and Detective Loach (Dick Bakalyan)—co-workers of Jake's when they worked Chinatown together for the District Attorney. They are convinced she has murdered her husband. Jake enlists Curly (Burt Young), a former client, a fisherman who appears in the opening scene of the film and who owes Jake money, to transport Evelyn and her daughter in Curly's boat to Ensenada, directing Curly to pick them up in Chinatown. It is Jake who tells Evelyn to take her daughter to the home of one of her Asian servants (James Hong) who lives in Chinatown. Curly goes off to find the two women, and Jake goes to confront Cross about his murder of Hollis and his incest with his daughter, now clear that Cross' oft repeated words "Just find the girl" has perverse meaning. In their verbal confrontation at the Mulwray home, Cross acknowledges everything in the most matter of fact manner, but Mulvihill is on the scene hidden, and when called forth by Cross, Mulvihill appears with a gun which he sticks in Jake's ear, reprising the earlier scene of the cut nostril. Cross forces Jake to take him to "the girl." They end up in Chinatown, where Jake is met by his two handcuffed associates, Walsh and Duffy, and by Escobar and Loach. Jake is first relieved to be out of Cross' clutches and tries to tell Escobar about Cross' perfidy, but none of it makes sense to Escobar. He is arrested for extortion and interfering with a police investigation, and handcuffed to Loach.

What follows is a fast-paced confrontation between Evelyn and her father; his attempt to pull his granddaughter out of the car; Evelyn's resistance (Cross to Evelyn: "How many years have I got?...she's mine too" and Evelyn's response: "—she's never going to know that,"<sup>24</sup> Evelyn shooting her father in the left arm; Evelyn with her daughter, Katherine, speeding away in the car, only to be shot in the left eye and killed by Loach. In the end, Cross, staring down at Evelyn who falls part way out of the car, repeats "Lord...Lord...oh Lord,"<sup>25</sup> and pulls his granddaughter away. Jake is left with Escobar who releases everyone, telling Jake he is doing him "a favor," and the film ends with the last line from Walsh to Gittes, "Forget it, Jake—it's Chinatown."<sup>26</sup>

### **The Art of *Chinatown*: Image, Motif and Symbol**

*Chinatown*, like any good film, operates on many levels, and the depth of its meaning is revealed only upon close inspection. The film can be taken as an interesting period piece, a hard-boiled detective story in which the truth is revealed only after many layers are pulled back, a quasi-historical story capturing aspects of the development of L.A., a desert town in need of water and land if it is to expand, and the lengths some will go to in order to make this happen for their personal benefit (referencing obliquely with poetic license the quasi-historical tale of "the rape of Owens Valley," the diversion of water from the High Sierras north to the south, William

Mulholland's grand aqueduct and the collapse of the St. Francis Dam he designed, the dubious activities of former L.A. Mayor Fred Eaton, *L.A. Times* publisher Harrison Otis, and transportation magnate Henry Huntington).<sup>27</sup> As such, it is an object lesson pointing to high ethical and moral standards of some (Hollis Mulwray), the complete lack of morals and ethics of others (Noah Cross), and the damage done to people and place when greed and corruption win out.

On a deeper level, the film is a tale about human frailty, the weakness that pervades all the film's characters, their innate inability to foresee the future confounded by their inability to see with clarity the world of the present, its truths and complexities as they are. This is especially true of private eye, Jake Gittes, whose blindness ironically prevents him from seeing the world before him, though it is his job to see the truth of things, sort them out and solve/resolve complex human conflicts and problems. His eye is *too* private, not open to what his work and responsibilities require him to see. This failure of sight is true, as well, for Evelyn Mulwray—a woman we are told who has a “flaw” in her left eye, a genetic flaw which points back to her father. The flawed eye becomes symbolic. She too is unable to see what is real, and consequently she is unable to avoid the disaster coming her way. Her flawed eye is also symbolic of her other flaws, her weaknesses, and her unwillingness to tell Jake the truth straight away. That she is shot in her flawed eye in her flight to save her daughter from her father, the implied source of her flaw, adds irony to irony. Even Noah Cross, the sadistic, evil, perverted, controlling genie of L.A., reveals all the human weakness of failed sight we could ever want. His inability to see what he has done, or more precisely to care about what he sees, underscores his emotional blindness to what really matters. If it is the future (e.g., L.A.) that counts to Cross, it so dominates his view that he soils the present in his rapacious haste to dominate Nature which even he, like the Biblical Noah, cannot command. Further, in Cross' pursuit of his granddaughter—symbolic of the next generation—Jake, and we viewers, understand that he wishes to corrupt the future as well.

On yet another level, *Chinatown* is a tale about the clash of humans and Nature.<sup>28</sup> Humans are embedded in Nature and are dependent upon it, yet our actions undermine and threaten what we need from Nature, including its beauty and sanctity. When we destroy Nature, we destroy ourselves and our futures (including our children and grandchildren). To quote from a published interview with screenplay author Robert Towne:

“With *Chinatown*, I originally thought I'd do a detective movie....But then I didn't want to do just any detective movie....you start thinking about what crime is to you, what it really means, what you think is really horrible and what angers you....I wanted to do something that really infuriated me. The destruction of the land and that community was something that I thought was really hideous. It is doubly significant because it was the way Los Angeles was formed.”<sup>29</sup>

As is suggested above, the film's artistic richness is revealed in its images and motifs, which are transformed into symbols through their placement, repetition, and juxtaposition with language and narrative context. A few additional examples will suffice.

Perhaps the primary symbol—realized visually only at the close of the film—is Chinatown itself. Chinatown is said to be a place where one does “as little as possible” on the District Attorney’s advice, where things wind up the opposite of what one seeks, where, as is demonstrated through Jake’s twisted journey and the viewer’s experience of it, “You may think you know what’s going on, but you don’t,”<sup>30</sup> almost the precise words spoken to Jake independently by both Cross and his daughter. One gets lost, figuratively, in Chinatown. It is a place of confusion and mystery for white Angelinos. Symbolically, Chinatown represents the maze in which Jake and the others find themselves. Its borders extend far beyond the Chinese district of L.A. to L.A. itself, indeed it becomes the equivalent of both a state of mind, a hazy locus of human action where the real seems unreal, and the unreal or unbelievable become real and painfully so. References to Chinese appear throughout the film, first in an off-color joke told by Jake to Walsh and Duffy and unbeknownst to him, overheard by Evelyn and her lawyer who have come to confront Jake about the headlines announcing Mulwray’s affair. Chinese/Asian people are scattered throughout the film, as Evelyn’s Chinese servants and aides, as her Japanese gardener who tells Jake that salt water is “bad for glass”—ultimately helping him realize that it was, ironically, in the salt water tidal pool where Mulwray was murdered by Cross, thus leading Jake to find Cross’ broken bifocals in the pool (another instance of the sight motif). Indeed, “Salt water is velly bad for glass.”<sup>31</sup> Finding the glasses in the salt water ties Hollis’ murder to Cross and this ultimately proves to be bad for everyone except Cross.

The perverse evil represented by Noah Cross is captured in his name. As Eaton observes, “Noah, the name of that Biblical patriarch most associated with excess of water rather than with, as in this city, drought, and Cross, an instrument of torture, a symbol of redemption....”<sup>32</sup> Further, as Erie notes, “A Mephistopheles with a cunning smile, Cross also acts out a devilish parody of the biblical Noah’s repopulation of the earth. By violating his daughter and coveting his granddaughter, he seeks to impregnate Los Angeles with a future-without-limits.”<sup>33</sup> Indeed, this is a “crossed” Noah, a man whose first name and meaning is countered by his last, a man described by Eaton as the embodiment of “transcendent evil.”<sup>34</sup>

This inherent contradiction is likewise captured by the Christian symbolism of fish that pervades the film, begun at the film’s very opening scene with Curly, the fisherman, moaning in Jake’s office at the sight of sexually explicit photographs of his wife with another man, and who at the close of the film is called into service by Jake to take Evelyn and her daughter to safety on his tuna boat. Cross operates from the Albacore Club, identified in short form as “A.C.” on banner, as well as on a quilt being made at a old folks rest home that Jake and Evelyn visit as part of Jake’s uncovering of Cross’ land grab. (To divert attention from Cross, these residents’ names are used, without their knowledge, as the official buyers of land at cheap prices.) The office of Russ Yelburton (John Hillerman), Deputy Chief of Water and Power and a henchman of Cross’ who becomes Chief after Mulwray’s death, sports a “lacquered marlin mounted on the wall” and pictures of Yelburton with “yellowtail and other fish” and a “small burgee of a fish with the initials A.C. below it.”<sup>35</sup> Cross and Gittes dine on fish at the Club, the fish coming whole, “whose isinglass eye is glazed over with the heat of cooking.”<sup>36</sup> Like the “crossed” Noah, the link between Christ and fish is turned on its head, and it becomes clear, given Cross’ nature and deeds, that A.C. stands for Christ’s opposite, the Anti-Christ. Similarly, as Erie observes, the word “albacore” is mispronounced on several occasions in the film as “apple core” which Erie observes suggests “...an association with Garden of Eden after the Fall.”<sup>37</sup> That only the apple’s

core remains in this allusion captures Cross' visceral, consumptive nature and precisely how far he has been removed from Eden. Further, that Cross' daughter's name is Evelyn also references Eve in the Garden and outside of it.<sup>38</sup> Not even the water and land he steals can recreate that first place in L.A. Again, that Cross has a limp requiring a cane—made more obvious when he is shot by his daughter and runs to Evelyn's car with others to find her dead—is an allusion to the devil who is portrayed classically in literature as having a limp. Cross' evil operative, "the Man with the Knife," likewise has a noticeable limp. These are not casual character traits, simply added for the looks of things on screen or to signify deformity. They are carefully included for symbolic purposes for those who have "eyes to see," i.e., knowledge of literary convention. In Cross' case, as Eaton opines, the cane also makes him a "...three-legged creature" like the one "...that walks the evening in the Sphinx's riddle" in *Oedipus*.<sup>39</sup>

Water is another pervasive symbol. Its absence at the outset of the film means drought, in this case a drought "manufactured" by Cross,<sup>40</sup> which becomes the source of the city's public outcry for a solution. It is also contained in the biblical reference to Noah. In one early scene, water emerges as steam from an overheated car radiator. Water is diverted by Cross to the ocean, and Jake is nearly killed by the strong release stream that catches him off guard as he investigates. Mulwray is found drowned in Oak Park Reservoir, but his lungs are filled with salt water from his own pond. Ironically, though Mulwray's life ends in his homemade, carefully maintained backyard saltwater pool at the hands of Cross, Cross tells Jake at their final revelatory confrontation at the Mulwray house:

"—that's where life begins...marshes, sloughs, tide pools...he [Hollis] was fascinated by them....you know when he first came out here, he figured that if you dumped water onto desert sand, it would percolate down to the bedrock and stay there, instead of evaporating the way it does in most reservoirs. You'd lose only twenty percent instead of seventy or eighty. He made this city."<sup>41</sup>

Water, of course, is also inherently connected to the fish symbols as detailed above. Early on in his investigation Gittes tells Walsh and Duffy that Mulwray "has water on the brain," but as Walsh tells him as Chief Engineer of Water and Power, "What'd you expect? That's his job."<sup>42</sup> After the scene of "nasal violence," in Towne's screenplay Jake tells Walsh and Duffy that he wants to find the "big boys" behind the water theft, the people who employ Mulvihill and the Man with the Knife, to "sue 'em—we'll make a killing. We'll have dinner at Chasen's twice a week, we'll be pissing on ice the rest of our lives."<sup>43</sup> In response to Cross' question to Jake about whether Escobar is honest (i.e., corruptible), Jake replies, "—Far as it goes—of course he has to swim in the same water we all do,"<sup>44</sup> linking water not to its life-giving and sustaining qualities, but to its ability to be polluted. In short, water, flowing through the entire film both literally and figuratively, becomes a symbol of the abuse of Nature perpetrated by Cross for his own obsession. Through his perverse use of water—Nature—he has a tool to kill, not to enable life. As is noted above, this message is linked inextricably with Cross' perverse abuse of his daughter and his appetite for his granddaughter, a vessel to satisfy his own desires to destroy, to overpower, and on which to assert his ontological being.

A great deal more deserves to be said about the artistry of Towne's award-winning screenplay and the film as produced by Evans and directed by Polanski, but evidence of its merit, richness,

and complexity should already be apparent. Polanski's directorship of *Chinatown* and his interactions with Evans as they yield the final product deserves greater discussion than can be achieved here. So, too, the artistic contributions of Director of Photography John Alonzo, Set Designer Ruby Levitt, Costume Designer Anthea Sylbert, and the haunting music of Jerry Goldsmith, can only be asserted here as having been integrated by Polanski to help recreate the period, to develop the viewer's perspective, and to create the atmosphere and the mood that enhance not only the viewer's experience but reinforce the underlying themes of the film.

### **Using *Chinatown* and Film in Engineering Education**

All of the above has been an explication of the complexity and depth of *Chinatown* as an artistic product that merits serious attention and study. It is an example of the kind of film artistry that would be included in a course in a film studies department or even in more inclusive (rather than narrow, disciplinary) departments of comparative or English literature.

*Chinatown* and like films that explore the human condition and pay special attention to human-environment interactions can have special relevance and utility to the liberal arts component of an engineering curriculum. Such films are a superb educational tool to address core humanities issues at the heart of engineering and technology. Indeed, the study of film as an art form is a window onto the cultures and contexts that generate film, and thus inherently relevant for engineering education. Carefully looking through this window, observing and noting what we see, inevitably reveals something about how we humans interact with time, place and each other. In turn, this inevitably reveals ways we conceive of and interact with Nature, whether or not human-environment interactions are explicitly the subject matter or a content element of a given film.

As has been addressed above, however, *Chinatown* indeed explicitly explores the ethical practices of engineers and developers whose professions and practice inevitably and inextricably tie them together. In saying this, it should be clear that commercial films in general are not intended exclusively to be tools of analysis that define or explain, for example, ethical or unethical behaviors as they would be treated by a philosopher teaching an engineering ethics course. As noted earlier, the issue of the need expensive films have to serve a mass audience, the need to "entertain" as well as to engage (not to mention to instruct) an audience, makes the film business problematic. Nevertheless, the art of successful film making, in part, is indeed to engage the viewer in an *experience* much the way literature does, by means of sympathetic identification with characters and their actions, struggles, emotions and contexts, by leading the viewer to be an investigator of sorts—a detective—trying to comprehend what they see and to unravel and comprehend its secrets. Film, unlike literature of course, uses *moving visual images* that float across the screen and transport the viewer caught in the moment—in the timeframe of the film—to different times and places, to sail over landscapes—real or imaginary—to gain physical and emotional and cultural perspectives that incorporate values, beliefs and perceptions enabling the viewer *to see differently* and potentially *to feel differently* not only about issues, problems and "the other," but about themselves.

Further, as described in earlier sections, one of the themes of *Chinatown* is the failure to see things clearly and the consequences of making hasty professional judgments based upon

incomplete information and past experience, in this case in “matrimonial work.” There is value here for the engineer as well as for other professionals, but hardly exclusively.

One of the film’s themes is the special relationship and responsibility we humans—and particularly Earth-transforming engineers—have as we make decisions and impose our judgments and our wills upon Nature (environmental systems) from our individual vantage points, desires, and places in time. From the point of view of educating engineers, it is particularly important that the film depicts, through the lens of the private eye, an engineer in action, a professional who acts responsibly under pressure and facing constraint (Mulwray: “I won’t build it [a dam constructed in the manner described]. It’s that simple.”). Mulwray is a man who investigates suspicious activity (the diversion of water) out of his sense of duty, and who is destroyed in order to advance the desires of others. In depicting an ethical engineer, the film offers in concrete terms an example of the dark side of life we all live with, and the professional/human choices one must make as an engineer and their potential consequences. Engineering students have much to contemplate in this tale.

As previously noted, technique and technologies are part of the production of any art form, but by its very nature film—especially contemporary film with all of its digital special effects and graphics—is wedded to “big” technology. Modern viewers, especially young people who have been brought up with computing, the web, digital communication systems and the like, are attracted to technology and its products, and are eager to see the products of technology used in the classroom. This is especially an expectation of engineering students, who are inherently interested in technology, design, form, materials, and composition. Noting this helps explain the strong interest many engineering students have in “art”—artifacts and artifice. Frequently, and surprisingly to some, engineering students have an innate eye for these things. However, like others, engineering students need help in seeing their significance, their relational interactions and the larger context that gives rise to them, gives them meaning, and transforms what we make—images and artifacts alike—into symbol, and transforms symbol into myth, transformations that are relevant to the cultural perception and expression of technology.

As has been addressed in the National Academy of Engineering’s (NAE) publication, *The Engineer of 2020*,<sup>45</sup> the preparation of engineers must address the *context* of the profession and its practice and must educate engineers who can see trends and connections and foresee new directions for a crowded planet facing resource and biospheric constraints. NAE emphasizes the importance of educating engineers to be leaders in their professions as well as in their individual lives. To do so implies educating students in the socio-political-cultural-environmental context of engineering and society. All of these contextual elements are incorporated within *Chinatown*, but *Chinatown* is not unique in this regard. As such, and as been offered here, with the proper selection and explication, film study can be a highly useful educational approach that can assist in creating the “seeing” engineer who can better perceive with clarity the world in which they live and act and their own responsibilities as engineers, as citizens, and as individuals.

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## References

- <sup>1</sup> Towne, Robert, "Chinatown," in *Two Screenplays: Chinatown [and the] Last Detail*, 2<sup>nd</sup> ed. New York: Grove Press, 1997. *Chinatown* copyright, 1974, pp. 3-146.
- <sup>2</sup> Eaton, Michael, *Chinatown*, 4<sup>th</sup> ed. London: BFI Publishing, 1997, p. 21; Erie, Steven P., *Beyond Chinatown: The Metropolitan Water District, Growth, and the Environment in Southern California*, Stanford: Stanford University Press, 2006, p. 31.
- <sup>3</sup> Leitch, Thomas, *Crime Films*, Cambridge: Cambridge University Press, 2002, pp. 203 and 212.
- <sup>4</sup> Naremore, James, *More Than Night: Film Noir In Its Contexts*, Berkeley and Los Angeles: University of California Press, 1998, p. 210.
- <sup>5</sup> McRae, Tony, "Chinatown: A Commentary," [http://members.tripod.com/mcrae\\_tony/chinatown-review.htm](http://members.tripod.com/mcrae_tony/chinatown-review.htm), n.d.
- <sup>6</sup> Eaton, op. cit., pp. 41-42.
- <sup>7</sup> Ibid. p. 48. Eire, op. cit. p. 30.
- <sup>8</sup> Towne, op. cit., p. 8.
- <sup>9</sup> Erie, op. cit., p. 30.
- <sup>10</sup> Towne, op. cit., p. 105
- <sup>11</sup> Ibid., p. 105
- <sup>12</sup> Ibid., p. 11.
- <sup>13</sup> Ibid., p. 16.
- <sup>14</sup> Ibid., p. 19
- <sup>15</sup> Erie, op. cit., p. 35.
- <sup>16</sup> Towne, op. cit., p. 140.
- <sup>17</sup> Ibid., p. 141.
- <sup>18</sup> Ibid., p. 111.
- <sup>19</sup> Eaton, op. cit., p.45.
- <sup>20</sup> Towne, op. cit., p. 127.
- <sup>21</sup> Towne, op. cit., p. 128.
- <sup>22</sup> Ibid., p. 129.
- <sup>23</sup> Leitch, op. cit., p. 212; Erie, op. cit., p. 32.
- <sup>24</sup> These words are spoken by Noah Cross and Evelyn, but they do not appear in Towne's 1974 screenplay. Indeed, the ending was modified considerably by Director Roman Polanski. In the making of the film other scenes from Towne's screenplay were changed or omitted.
- <sup>25</sup> As in note 22, these words are spoken by Noah Cross in the film, but they do not appear in Towne's 1974 screenplay.
- <sup>26</sup> Towne, op. cit., p. 146.
- <sup>27</sup> Eaton, op. cit., pp. 24-25; Eire, op. cit., pp. 33-41.
- <sup>28</sup> Leitch, op. cit., p. 212; Erie, op. cit. p. 32.
- <sup>29</sup> Towne, Robert, "On Refining Story: A Conversation with Robert Towne," 2002, <http://www.fathom.com/feature/122390/>.
- <sup>30</sup> Towne, op. cit., p. 108; a variation of these words spoken by Evelyn are uttered by Cross to Gittes, "You may think you know what you're dealing with—but believe me, you don't." p. 80.
- <sup>31</sup> Ibid., p. 123.
- <sup>32</sup> Eaton, op. cit., p. 47.
- <sup>33</sup> Erie, op. cit., p. 32.
- <sup>34</sup> Eaton, op. cit., p. 64.
- <sup>35</sup> Towne, op. cit., p. 29.
- <sup>36</sup> Ibid., p. 78.
- <sup>37</sup> Eire, op. cit., p. 32.
- <sup>38</sup> Leitch, op. cit., p. 212.
- <sup>39</sup> Eaton, op. cit., p. 48.
- <sup>40</sup> Eire, op. cit., p. 32.
- <sup>41</sup> Towne, op. cit., p. 140.
- <sup>42</sup> Ibid., p. 16.
- <sup>43</sup> Ibid., p. 54.
- <sup>44</sup> Ibid., p. 79.

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<sup>45</sup> National Academy of Engineering, *The Engineer of 2020: Visions on Engineering In The New Century*, Washington, D. C.: The National Academy Press, 2004, pp. 1-82.