THE TECHNICAL DIRECTOR: THE HISTORY, THE LEGACY,
AND A GLIMPSE BEHIND THE CURTAIN

A THESIS IN
Theatre

Presented to the Faculty of the University of Missouri-Kansas City in partial fulfillment of the requirements for the degree

MASTER OF ARTS

by
AARON DOUGLAS ROOSE

M.F.A., University of Missouri Kansas City, 2013

Kansas City, Missouri
2013

Aaron Douglas Roose, Candidate for the Master of Arts Degree

University of Missouri-Kansas City, 2013

ABSTRACT

The central purpose of this thesis is to explore and document the position of the technical director within the American theatre during the 20th century and into the present day. The research focuses more heavily on the earliest origins found in the existing literature and subsequently traces the position into more recent years and the manifestations of the job therein. The thesis also endeavors to lay a framework for bridging the origins of the job to its current incarnations. To this end, a significant amount of new research is contributed to the field of theatre history. To the author’s knowledge, no such work previously existed in the historical canon of theatre literature prior to this thesis. Much of the information contained herein was assimilated from various technical manuals written throughout the 20th century. These manuals were not written to be historical source material, but were concerned with the pragmatic details of technical theatre. Much had to be ascertained by reading between the lines.

The research is not merely concerned with numbers or statistical data, but also with what type of individuals are drawn to this position and how they got there. To this end
personal interviews were utilized and incorporated as a significant part of this project. The information gleaned from the interviews offers a clear picture of who is currently performing this job, the career trajectory those individuals followed to arrive at their current positions, and presents unique insights into what draws people into this type of work and holds their interest throughout a career.

The findings show that the role evolved significantly regarding aspects such as specific job functions within certain types of producing organizations. Other aspects such as attention to detail, organization, decision-making, and proficiency in a range of skills have existed virtually unchanged since the advent of the position, when it was often not acknowledged as a separate and specific role in the theatre. In light of ever-increasing technological demands the findings also demonstrate that, gradually, the position of technical director is being more widely recognized as critical and integral to the theatre as an industry.
The faculty listed below, appointed by the Dean of the College of Arts and Sciences of the University of Missouri-Kansas City, have examined a thesis titled “The Technical Director: The History, The Legacy, and a Glimpse Behind the Curtain,” presented by Aaron Douglas Roose, candidate for the Master of Arts degree, and certify that in their opinion it is worthy of acceptance.

Supervisory Committee
Felicia H. Londré, Ph.D., Committee Chair
Department of Theatre

Charles M. Hayes, M.F.A
Department of Theatre

Jeff Church
Producing Artistic Director
Coterie Theatre, Kansas City, Missouri
CONTENTS

ABSTRACT .................................................................................................................. iii
LIST OF ILLUSTRATIONS ....................................................................................... vii
ACKNOWLEDGEMENTS ......................................................................................... viii
PREFACE .................................................................................................................. ix
INTRODUCTION ....................................................................................................... xiii

Chapter

I. What Does the Technical Director Do? ................................................................. 1
II. Interviews – Who is the Technical Director? ...................................................... 14
III. History – Part 1 .................................................................................................. 44
IV. History – Part 2 .................................................................................................. 53
V. History – Part 3 .................................................................................................. 66
VI. History – Part 4 .................................................................................................. 80
CONCLUSION ........................................................................................................... 104
BIBLIOGRAPHY ...................................................................................................... 110
VITA ......................................................................................................................... 117
# ILLUSTRATIONS

<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A – 1st Page of Edward Siedle’s 1908 Contract with the Metropolitan Opera Company</td>
<td>48</td>
</tr>
<tr>
<td>B – Richard Rychtarik’s 1947 Contract with the Metropolitan Opera Company</td>
<td>52</td>
</tr>
<tr>
<td>C – Organizational Chart from <em>The Scene Technician’s Handbook</em> (1928)</td>
<td>56</td>
</tr>
<tr>
<td>D – Table of Contents – <em>Stage Scenery and Lighting: A Handbook for Non-professionals</em> (1930)</td>
<td>63</td>
</tr>
<tr>
<td>E – Organizational Chart for a Little Theatre – from <em>The Practical Theatre</em> (1926)</td>
<td>68</td>
</tr>
<tr>
<td>F – Two Different Organizational Charts – from <em>The Process of Play Production</em> (1926)</td>
<td>71</td>
</tr>
<tr>
<td>G – Organizational Chart – Children’s Theatre of Evanston – from <em>Creative Dramatics</em> (1930)</td>
<td>74</td>
</tr>
<tr>
<td>H – A detailed chart showing various positions in different types of producing organizations, including technical director (Burris-Meyer, 1938, 28-29).</td>
<td>85</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

This thesis would not have been possible without the help and support of many individuals. To the individuals who responded to my interview requests and gave of their time and imparted their collective experience, my thanks. They are: Aaron Wilson, Adam Goodrum, Bill Shinoski, Bob Scales, Ben Sammler, Chaz Bell, Chuck Hayes, Dennis Dorn, Doug Taylor, EJ Reinagel, Henry Tharpe, Jack Nardi, Jeff Roudabush, Jerry Genochio, Le Hook, Mark Hennigs, Matt Francis, and Nathaniel Wiessner. Ben Sammler was particularly helpful, both in directing me to other potential interview candidates and also providing background information on Yale’s theatre program and the recent history of incorporating structural design into graduate coursework. I would like to thank The Metropolitan Opera, and specifically John Tomasicchio, their archivist, both for their assistance in retrieving invaluable source material and for permission to reprint materials from over 100 years ago. A significant amount of networking and research resulted directly from the United States Institute for Theatre Technology Conference in 2012, and I would like to thank the USITT for bringing together past and future generations of theatre practitioners. The organization provides unique opportunities, particularly for students. Neil Mazzella willingly gave of his time and energy and ultimately provided insight into part of the theatrical industry that I was unaware would have direct impact on this research, but made an excellent addition to this paper. My thanks to Jeff Church for his time and effort invested by being on my committee. I offer special thanks to Chuck Hayes for his guidance and assistance in completing my M.F.A, his subsequent help on this project (including sitting on my committee), during which time he has also provided significant employment assistance, for which my family
also thanks him. This paper would not exist without my decision to pursue the M.A. degree. That decision would not and could not have happened without the assistance and incredible motivation given by Dr. Felicia Londré; for her editorial assistance, her tenacious encouragement, for chairing my committee, and for her patience throughout this process, much gratitude is owed to her. Finally, my wife Laura is the main reason I made it through graduate school, including this project. For her there simply aren’t words, or the space to write them, but I am grateful.
PREFACE

During my first semester of graduate school, while taking an American theatre history class, I attempted to write a term paper regarding the history of the technical director. At that time I was pursuing only the M.F.A. and was, as yet, unaware of the magnitude of the question being considered. I quickly discovered that there was virtually no research in this particular area of theatre history; and that pragmatically the writing project was far more complex than a simple research paper could address.

After deciding to pursue the M.A. I was quickly drawn to the idea of undertaking this research in the form of a thesis. It seemed the logical culmination of my studies in both technical direction and theatre history. Being aware of the lack of research led me to incorporate personal interviews into my research. The interviews offered the opportunity to trace the history of the position several decades backward into the 1950s. However, as the interview process progressed I realized that I wanted to portray not just the history, but to capture a glimpse of those who were doing this job, how they got there, and what motivated them to continue in this line of work.

The result is the paper before you. I ultimately discovered more written source material than initially anticipated, in part because I expanded my search parameters. However, of all the source material in this paper, almost none of it was written with the intention of providing a historical treatise on the subject. Therefore, substantial portions of this research are primarily derived from taking details given in the text, such as certain responsibilities that would now be attributed to the position of technical director, and assimilating them to form as accurate an image as could be derived from the source material.
Ultimately we are left with not only substantial historical narrative derived from books from various periods, we are also left with the legacy that this position has left the theatre industry. That legacy is examined both historically and as it relates to individuals currently performing the job, and to those just beginning as well.
For Highland
INTRODUCTION

One hundred years ago, a student writing a similar paper about the position of the director in the theatre would have encountered many of the same issues I encountered in tracking down the history of the technical director. However, a student writing the same paper today would have to sift and sort through myriad data and the hundreds, if not thousands, of books written about that subject during the last century. I do not imagine the position of the technical director will ever have prestige equal to that of the stage director; however, perhaps this paper will serve as a first step in creating a much-needed basis of knowledge about the role.

Chapter 1 establishes a basic understanding of what functions the technical director typically performs in today’s theatre industry. However, as this paper will demonstrate, even that basic understanding can be challenging to accurately pinpoint due to the wide variance in types of producing organizations and job functions within those organizations. In order to properly compare and contrast the position to its historical predecessor, a framework was needed. I do not believe this framework is useful solely for readers outside the theatre industry. I would contend that even within the confines of graduate-level theatre education there are some, if not many, individuals involved in the production process who could not accurately describe the role and function of the technical director. It is important for the reader to bear in mind that this section represents my experience of the production process through four years of graduate school, my firsthand observations of a non-profit regional theatre in the Kansas City Repertory Theatre, and information gleaned from interviews spanning a wide array of job types, producing organizations, and spanning more
than 60 years of technical direction experience. The paper will demonstrate that there is simply no way to adequately encapsulate all the variables for this position because there are simply too many incarnations of the role in today’s theatre.

The next logical step, now that we see the job that is being done, is to try to ascertain who is doing it and why. The interview section attempts to do so in a concise and efficient manner. However, my caveat regarding this source material is that it is sufficient for its own research project. I wanted to focus on this element as it related to the whole concept of the paper. The insights contained in the interviews, as well as some of the anecdotal material, were extremely useful and relevant to the task at hand. My original intent was to include all of the interviews in their entirety, but that was not possible within the confines of this project.

The first important element from the interviews is to whom, specifically, these questions were directed. The respondents crossed the spectrum with regards to age, years of experience, prominence within the industry, type of organization for which they worked, background, and current employment status. One goal was to compare and contrast what, if any, aspects of the job had changed over time and which had remained constant. Another goal was to determine what drew these individuals to this line of work, and whether the same was still true of up-and-coming technical directors. Finally, it is important to note the nature of how these respondents were chosen. Every technical director, or former technical director interviewed for this project was either directly known to the author, or one degree of separation removed from the author. This is critical because each person was contacted directly, or was recommended because of his unique ability to contribute to this research.
The second important element is what the respondents were asked. The interview attempted to ascertain a well-rounded portrayal of the person, by incorporating specific data and narrative and/or opinion based questions. In addition to things such as which types of meetings they were required to attend as part of their job, I was interested in the parts of the job that they considered the most critical. Additionally I wanted to track common frustrations and common feelings of accomplishment; in essence, what made these individuals tick, and whether there were common denominators among the respondents. Finally, I was quite interested in how the respondents saw themselves, and the role of the technical director in general, contributing to the art of the theatre as a whole.

Due to the nature of pursuing potential respondents from one interviewee to the next, on the advice of Ben Sammler I chose to interview Neil Mazzella of Hudson Scenic Studios in New York. The interview led to the creation of a specific section in the paper clarifying the difference between the technical director and the technical supervisor. This is a distinction not readily apparent to anyone who has not been around the commercial theatre. (For clarification of the terms “professional” and “commercial” see the section on Broadway as compared to non-profit regional and academic theatre.) The reason this section is included in the interviews is because the information was gleaned directly from an interview (or at least an attempt at the same interview, before realizing the fundamental differences between the two jobs, and getting some much needed historical narrative and clarification on the differences). For someone who has been around technical theatre for years and had no awareness of this distinction, it seemed very relevant and critical to this body of research.
The rest of the thesis focuses on tracing the history of the position. Some very early source material was located dating from 1903. However, aside from the initial information gathered from The Metropolitan Opera, the majority of the source material does not begin to surface until the mid to late 1920s. Because the genesis of the position was one of my top priorities, significantly more time is paid to the earlier portions of the century than the latter. The search eventually incorporated a wide range of books from the 1920s and 1930s including books about how to produce plays, stage management, amateur and professional producing organizations, and the bulk of the resource material: technical manuals focusing on production processes and techniques.

The final stage in the process of tracing the history of the position was to bridge the gap between the historical context and the modern. To achieve this result the paper incorporates information from interviews and printed source material. Here again, some of the narrative from the interviews proved extremely helpful in forming a more complete picture of the state of the job within the industry as far back as the 1950s and 1960s; and it assists in connecting those jobs with the ones held in the industry today. The paper concludes with a discussion of the modern era of technical direction, as it pertains to standardization within graduate level training and compartmentalization of job functions within today’s theatre industry. The author’s intent is that the reader, after reading this thesis, will be able to ascertain where this position began, how it evolved during the course of the twentieth century and into the twenty-first, and through the use of interviews, have a better idea of who is doing this job, both historically and today, and why they have and continue to be attracted to this particular line of work.
CHAPTER I

WHAT DOES THE TECHNICAL DIRECTOR DO?

In general, designers design, directors direct, stage managers manage (a vast array of things and people), actors act, and so on. However, technical directors do not always fit into the precise confines of the connotations of their job title. What does the technical director do? In this most nebulous of art forms it can be very challenging to accurately articulate a job description. There are areas within the theatre world where this may prove less true than others. For example, lighting designers create art by using light, and then they implement that art into a production, while simultaneously meeting the practical needs of illuminating the stage. Costume designers would fall into a similar job description, only using fabric rather than light. Sound designers begin to get into a more grey area. Their job may be, on a given production, to fulfill a much more singularly pragmatic role, such as “practical” cues like a door slam or a telephone ring, which in no way detracts from their contribution to the art of that production. However, the director may want mood to be created through sound, in which case the sound designer would move into a similar realm as the aforementioned lighting and costume designers. The grey area increases for scenic designers who may be responsible for anything from designing a concept and passing it on to others for implementation, to a much more hands-on process replete with being their own scenic artists and sometimes even their own props masters. (This is not to say that a lighting designer will not function as his own master electrician or that a sound designer will not be her own audio engineer or that a costume designer will not also function as his or her own cutter or stitcher,
simply that the margin of grey area may become larger in the scenic realm than other areas of design.)

Throughout my own journey in the theatre, I have seen technical directors fill the roles of sound designer, light designer, shop foreman, scene designer, scenic artist, purchaser, draftsman, automation specialist, board operator (lighting and/or sound), follow-spot operator, carpenter, stage hand, etc. Any technical director will tell you that many of these things certainly qualify as being under their purview. However, some of them do not, some of them most likely should not, and some of them may only do so depending on the theatre in which the technical director is employed.

Despite the challenge of providing a specific list of job responsibilities (due to the wide variance in positions), I believe it is safe to make a few assumptions. Any technical director who does not have the luxury of having an assistant technical director or a draftsmen to create drawings for them will certainly be required to draft scale drawings (typically referred to as working drawings) in order to facilitate the construction of scenic elements. Communication is a critical component of the technical director’s job, and drafting is one of the most significant forms of communication for which a technical director is responsible. Regardless of the personnel working under the technical director, whether volunteer laborers (“weekend warriors”) in the context of community theatre, or theatre students (high school, undergraduate, or graduate) earning class credit or gaining departmental experience, or a paid crew with a master carpenter, all the way up to an assistant technical director, the accurate and efficient communication of the scenic designer’s plans through drafting is a critical element of the technical director’s job function.
In an interview with Bill Shinoski, Technical Director of the Kansas City Repertory Theatre, he discusses the importance of drafting: “The biggest goal I can have is to keep people from coming up the stairs” (to his office from the shop floor where scenery is being constructed) “because the more they come up here…means I’m not clear enough.” Shinoski goes on to describe this process as potentially one of the single most important aspects of his job; he says “getting it all out there so other people can see it…getting it all out of my head so somebody else knows about it…my Master Carpenter knows, my ATD knows, so I can go work on something else. If I can get as much information drafted and down there” (on the shop floor) “then I can deal with the individual problems as they arise” (Bill Shinoski, Personal Interview, 1/28/13).

In most graduate programs offering degrees in technical production, drafting is required as part of the curriculum. Before the advent of computer aided drafting or CAD (the first version of AutoCAD was released in 1982 and has evolved considerably in the last 30 years), all of the drafting was done by hand. Computers have certainly increased the efficiency of drafting, although an argument could be made that something artistic may have been lost in the process. It has been said that there is something intangible about a set of well-executed hand drawings that is lost in translation when rendered electronically. Many academic programs have phased out the coursework on hand drafting, favoring instead the more prevalent electronic version. My own graduate coursework included classes in both hand and CAD drawing. I will concur that while one is learning the trade of technical direction, computerized drafting provides a significant advantage as it allows one to easily correct errors and collaborate quickly and effectively with other production staff members.
Drafting is one of the most significant contributions that a technical director makes to the collaborative process. Drafting can contain anything from a quick sketch on a legal pad to a bird’s-eye view of the entire set (called a ground plan), to side elevations of any given piece of scenery, to general layouts for shifting scenery and automation, to very specific details of working scenery such as doors, windows, elevators, and turntables, all the way down to the minutia of specific nuts and bolts used to attach hardware. The United States Institute for Theatre Technology (USITT) has created standards for drafting, and these standards are one aspect of what the technical direction student strives to master as part of his or her craft. Working drawings, created by the technical director, take art (renderings and/or design draftings which may or may not contain all the requisite information necessary for construction) that has been created by the scenic designer and turn it into real world objects that will be created and will play a significant role in crafting the physical world of the play. Much of what is drafted for a production is very straightforward. Platforms, steps, and flats for example, have been drawn (and subsequently constructed) in much the same way for most of the last century (with the exception of increased digitalization in the last thirty years). However, even within the context of platforms and walls, there are many elements of a given production that will vary, whether slightly or drastically, from one show to the next. Beyond that there are frequently organic elements such as rocks, trees, hills, or objects that defy categorization. The most efficient method of communicating these items as clearly as possible, both to the carpenters and to the rest of the production team, is one of the technical director’s greatest challenges. The information contained in a technical director’s drafting is utilized by almost everyone on the production
staff. Stage management will use the ground plan to tape the outline of the set onto the floor of wherever rehearsal is being held, so the actors and director can block the show. The lighting department will utilize a line-set schedule (a list generated by the technical director of all the hanging scenery and where it is hung) and determine things such as sightlines and where lighting instruments can be mounted. The sound department will use the draftings to determine speaker placement and rigging. The costume department may even use draftings to determine the width of a doorway for costume construction to ensure, for example, that a given period gown can fit through a doorway or up a set of stairs and onto the set.

Another area under the technical director’s purview that forms a symbiosis with drafting is budgeting. In most cases the technical director is responsible for ensuring that production costs stay within certain parameters. These are typically dictated by the producing organization and are passed down to the technical director from the production manager or the producer. Specifically which areas within the budget fall under the technical director’s supervision varies from theatre to theatre. However, materials and labor costs for completion of the set are almost always included. Most of the time, the properties — or props — budget is included, as well as paint and these departments’ requisite labor. Historically the costume department and their budget have also fallen under the technical director’s supervision as well as lighting and sound; however, that is less frequent today. The delineation of the responsibilities of these departments is something that has evolved significantly in the last hundred years and continues to do so.

The budget is typically the starting point for the technical director. He is told what production the company will be doing and how much money they have to do it with. Quite
often, particularly with irregular or unusual scenic elements, the technical director will draft some or all of the scenery prior to budgeting for its materials to ensure an accurate cost estimate. Budget, or the lack of budget, is frequently cited as one of the most challenging aspects of this job. I would also describe it as one of the most gratifying when the technical director creates success within the confines of seeming impossibility. I would like to add that the frustration with budget is not necessarily relative to the amount of money available. In a conversation with Neil Mazzella, C.E.O. of Hudson Scenic in New York, he answered my question regarding the most frustrating aspect of his job by saying, “Being asked to do extremely technically aggressive shows on limited budgets. The commercial world is limited economics. There are only so many seats they can sell and so much money. So it’s kind of like a fixed economy. But every show’s different and with that you have to really understand the budgets, how to manipulate them, how to achieve everything you need to on budget or under, and in today’s world that’s extremely challenging” (Neil Mazzella, Personal Interview, 3/9/13). To put this quote in context, Hudson Scenic spends anywhere from $250,000 to $400,000 of their scenic budget for a straight play on Broadway. A typical scenic budget during my graduate coursework ranged from $2,500 to $15,000. This demonstrates that frustration with budget, or the lack thereof, is not necessarily related to how much money one has to work with. Indeed, there are times when the greatest creativity is achieved due to working under extreme constraints. One of the more challenging aspects of budgeting is the translation of sometimes incredibly abstract artistic ideas into reality, and subsequently determining the cost of creating that reality.
After the budgeting and drafting comes the physical construction and implementation of the scenic elements. This is an area where the job description of a given technical director may differ widely from one theatre to the next. There are theatres (typically larger and with larger budgets) that have enough personnel so that the technical director is not directly responsible for construction. If this is the case the position becomes more managerial at this point. Even when the technical director is actually participating in construction, the management aspect is present because rarely does the technical director build a set without assistance. This is an area where time management, personnel management, prioritization, and scheduling become critical to achieving the goals of the production within the time constraints. The technical director must ensure proper construction of all scenic elements not only to ensure safety for all involved, but also to anticipate issues that may arise during load-in and technical rehearsals. This part of the process mandates that the technical director must collaborate closely and frequently with virtually every department on a production. The lighting department may need assistance with rigging specialty items. The sound department may need to be informed on construction techniques so that speakers may be concealed within the set. The costume department may need special quick-change areas backstage or space configured specifically to meet the wardrobe requirements on a production. Stage management needs to be constantly updated on any scenic changes or items requiring special attention such as unusual stair heights, steeply raked stage floors, or special scenic elements like personnel lifts or flying rigs. The properties department (if, in fact, there is a separate department) may need assistance with automation or pyrotechnics. The technical director also interacts
with agencies or groups that enforce codes, regulations or standards related to the production, such as the Occupational Safety and Health Administration (OSHA), the International Alliance of Theatrical Stage Employees (IATSE), Actors’ Equity, and the local fire marshal or the Authority Having Jurisdiction (AHJ) and ensures that their respective codes and regulations are followed. The closest collaboration is typically between the scenic designer and the technical director, the goal of which is to ensure that the constantly evolving needs and artistic aims of a production are being addressed as carefully and efficiently as possible.

All of this activity takes place before and sometimes during the construction process. Depending on the organization, the technical director may be handling these things as the main function of his day-to-day job, or these things may have to be dealt simultaneously with the physical construction of the set. The technical director may have a wide range of help available to him. In an academic environment, whether high school, technical school, undergraduate, or graduate school, there are most likely theatre students working in the shop. Often this is a result of a class requirement, a work-study position, or a graduate assistantship. Depending on the program, the labor may be based simply on a desire to learn or to contribute to the production. The skills of these students can vary dramatically. Safety for everyone involved is paramount in academic environments due to the varying level of skill and experience the students bring to the workplace. The larger the organization in which the technical director works, the more potential delegation may be expected. Many larger producing organizations such as regional theatres may have a Head Carpenter, a Master Carpenter, and an Assistant Technical Director (or possibly more than one).
Typically in such situations these employees have more experience and a higher skill set, thus allowing for more delegation on the part of the technical director. Larger theatres may also have journeymen or apprentices learning a mastery of their specific trades. Depending on the organization there may be a full-time paid crew, and that crew might even be union carpenters, typically from IATSE. Depending on the level of skill, the technical director will typically be more hands-on for specialty installations such as very complicated automated scenery, particularly challenging rigging apparatus, or potentially hazardous situations such as pyrotechnics or flying personnel.

Following the construction comes the load-in. This process is often a very brief period of time in which all the pieces come together and begin to create the physical world of the play. For many producing companies, one show is being built while another is in rehearsals, previews, or performance. If the company has more than one venue this complexity is multiplied. This means that the load-in will immediately follow the closing of the show currently on the stage or stages. Communication and scheduling between departments is critical during this process, as everyone needs to be in the same space performing very disparate activities. The sound department often requires relative quiet in order to complete their technical work during sound check and level setting, much as the lighting department requires total darkness during much of the focus of their instruments. These necessities are incompatible with loading in scenery, which is typically loud and requires adequate lighting. Therefore the Technical Director must be as accurate as possible in scheduling the scenic load-in, and in communicating with the other department heads particularly if there is no Production Manager in the organization. Frequently the load-in is
completely under the purview of the Technical Director. Yet again, safety is paramount because, in spite of the aforementioned blocks of time in which the space is given entirely to one department, there is also considerable time where there could be multiple departments all on stage and working simultaneously.

Once the load-in is complete there is typically an initial walk-through for cast and crew followed by technical rehearsals. The initial walk-through provides an opportunity for the cast and crew to interact with the recently completed set and ask relevant questions regarding safety and operation of moving scenery. During technical rehearsals, the actors are brought together on stage with all of the various technical components of a production including props, scenery, lighting and sound, and sometimes costumes. It is at this point that the production assistants or stagehands or “run-crew” are also incorporated. The Technical Director’s level of involvement can vary widely depending on the type of production. At the very least he or she will attend technical rehearsals and troubleshoot if there are any issues with scenery. If a production involves any moving scenery this can dramatically increase the Technical Director’s active participation. Technical rehearsals are the place where all of the Technical Director’s careful planning and execution first come to fruition. There will always be changes and creative problem solving; however, if everything has been meticulously planned and well-executed, the Technical Director’s role can be more advisory during this part of the process.

Finally, after the production has closed there comes the strike. Many productions are simply broken down and discarded. However, there are often many parts and pieces that can be reused and, again, careful planning is needed. (Part of the job during the planning and
design phase is to consider which elements can be reused and then purchasing/building accordingly.) If the show is on tour, or is going to be transported to another location, the Technical Director may be responsible for carefully dismantling the set and loading it onto a truck. Typically if this is the case, the set will have been designed and constructed accordingly. Strikes can appear very chaotic to the untrained eye; however, there is typically a plan of action, devised by the Technical Director, which delineates the order in which things occur and assignments of specific tasks to specific personnel. This is particularly important in academic theatre where actors and other production personnel assist in striking the show, and may not be trained in such activities. Coordination with Stage Management is very helpful in efficiently assigning personnel under these circumstances. This type of strike is very different from one where the carpenters who constructed the set are the ones deconstructing it.

Safety has been mentioned cursorily but I would like to emphasize the importance of this concept. Typically safety brings to mind the image of actors injuring themselves on a set. This is very true; however, it is far from the extent of the subject. The technical director is also directly responsible for audience safety, which is often overlooked. This becomes particularly important in flexible spaces such as black box theatres where seating is often designed and constructed specific to a given production. There are many municipal codes which are typically enforced by the AHJ who regulate these types of situations. For example, the ratio of how many audience members are allowed to the number of exits and aisles available is critical when designing and implementing seating configurations. Things such as handrail heights, stair-tread width and rises, visibility of exit signs, and egress are all
things for which the technical director is directly responsible. The safety of not only the actors and audience, but of the crew running the production, and the crew building and installing the production should be a top priority to the technical director.

A critical element of safety, and one that is relatively recent to the field of Technical Direction, is the requisite math necessary to make choices regarding materials and construction techniques. A common example of why this math is necessary is the cantilevered balcony. Imagine the balcony scene from *Romeo and Juliet*, or the moonlight soliloquy from *Cyrano de Bergerac*. Now imagine that either aesthetically, or simply due to the practical constraints of the production the design calls for a balcony that extends out over the stage, seemingly unsupported, so that one actor can be directly underneath another. It creates a nice stage picture, which is heightened by the added intrigue of the seemingly floating balcony. Immediately upon receiving such a design, the technical director will need to make use of the basic engineering math in which he has been trained in order to assess which materials and construction techniques are necessary to achieve this design, as safely and with as much cost-efficiency as possible. The question is rarely “can it be done” but rather “can we afford” (either monetarily or with regards to time and labor) “to either do this ourselves, or outsource it to someone who can.” The beginnings of formal training for M.F.A. technical production students in this math can be found in the late 1970s and early 1980s. Specifically at Yale, which has often been a pioneer in the field, Bronislaw Sammler, who is the Chair of the Technical Design and Production Department, informed me that he began teaching structural design for the stage in 1974 or 1975. (Sammler would later co-author the book *Structural Design for the Stage*, published in 1999, which is now
the standard text for this type of coursework in many training programs.) The Head of Technology for my own graduate program at the University of Missouri-Kansas City is Chuck Hayes who cited this type of training in structural design from his own graduate work at the University of Iowa in the early 1980s. Hayes cited *Simplified Engineering for Architects and Builders* by Harry Parker and Harold Dana Hauf as the text for the coursework. However, many of the older technical directors interviewed for this project had no formal training in the engineering math that is now considered standard. They simply built (or frequently overbuilt) scenery, based on experience, to ensure safety to the best of their abilities. Let me add that typically scenic elements are far safer than they appear to the average audience member. In the previous cantilevered balcony example, once the technical director had run the math, a safety factor sometimes as high as ten (sometimes even more, such as when flying personnel) would be applied to create considerable oversight as a precaution. If the balcony needed to hold two actors weighing a total of 350 pounds, most likely the construction could, in reality, hold between 2000 and 3000 pounds, depending on the circumstances.
CHAPTER II

INTERVIEWS – WHO IS THE TECHNICAL DIRECTOR?

Interviews – Introduction and Acknowledgements

The following chapter would not have been possible without a great deal of assistance. All of the contributors are either current or former technical directors. I would like to express my gratitude to the following individuals for their willingness to contribute to this project: Aaron Wilson – Scenery Director, Utah Shakespeare Festival; Adam Goodrum – Technical Director (at the time of the interview), Goodspeed Musicals; Bill Shinoski – Technical Director, Kansas City Repertory Theatre; Bob Scales – Professor Emeritus, School of Dramatic Arts, University of Southern California; Ben Sammler – Technical Director/Production Supervisor and Chair of the Technical Design and Production Department, Yale School of Drama; Chaz Bell – Assistant Teaching Professor of Theatre Technology, University of Missouri-Kansas City; Chuck Hayes – Assistant Teaching Professor and Head of Technology, University of Missouri-Kansas City; Dennis Dorn – Professor of Theatre & Drama/ Resident Technical Director (retired), University of Wisconsin-Madison; EJ Reinagel – Instructor of Theatre Technology, Willamette University; Jack Nardi – Associate Professor, Executive Technical Director, Director of Technical Direction, M.F.A. program, University of Connecticut; Jeff Roudabush – Director of Production, Barrington Stage Company; Mark Hennigs – Resident Designer, University of St. John/The College of St. Benedict; Matt Francis (at the time of the interview) Assistant Technical Director (currently Technical Director), Goodspeed Musicals; Nathaniel Wiessner – Technical Director for Dance and Presenting Production
Manager; Henry Tharpe – Supervisor of Performance Services (retired), University of Missouri - Columbia; Le Hook – Technical Director (retired), B.T.W Magnet High School/Alabama Shakespeare Festival/Oregon Shakespeare Festival; Rick Stephens – Production Coordinator (retired), University of Texas at Austin; Doug Taylor – Professor and Technical Director (retired), University of Missouri-Kansas City/ Missouri Repertory Theatre; Neil Mazzella – founder and C.E.O. of Hudson Scenic Studio; and Jerry Genochio – Producing Director, Kansas City Repertory Theatre.

It is appropriate to begin with a brief explanation regarding several aspects of how and why this section is constructed. My initial thought was to include the complete interviews. However, this would have been an appendix of well over 100 pages, not all of which would have direct bearing on what I was trying to achieve with the interviews. There are quotations in the text cited directly from the interviews, including the relevant author information. There is also a section at the end of this chapter with selected quotations. I felt that parts of the information gathered had significant relevance to the overall research in the paper: for example, the question of whether or not the technical director is an artist and why. My solution was to include the question and then list some of the most interesting quotations sequentially. The information, when viewed side-by-side, is quite fascinating. Since many of these questions are more personal than statistical in nature, it was determined that anonymity was the best course of action for the selected-quotations section. However, the full texts of the interviews are available either by contacting me personally, or by accessing the copies on file with Dr. Felicia Londre at the Patricia McIlrath Center for Mid-American Theatre, located in the Performing Arts Center at the University of Missouri Kansas City.
It should be noted that there is quite a wide range of age and experience contained in these interviews. The interviews include classmates from my M.F.A. program, instructors from many different universities, professional technical directors, retired technical directors, current production managers who were formerly technical directors, a couple of professors emeritus, and even a founder and C.E.O. of one of the largest scene shops in New York City. Some of these men were pioneers in the field. Some of them are the giants upon whose shoulders the next generations will stand for many years. I have tabulated data that is more statistical in nature. Preceding the section containing the selected quotations, there is a template of the entire blank interview, along with some recreated sections that have assimilated data. The further I went in this process, the more I found that I was less concerned with the numerical data and far more interested in the personal narratives and opinions. I believe that there is a time and a place for simple numerical data. However, for the purpose of this paper I became more drawn toward questions that demonstrated what type of person was doing this job, their motivations, and subsequent trajectory in the field.

Finally, there is a short section regarding the significant differences between Broadway and the academic and regional non-profit theatres of today. I thought it would be helpful to include this small section to help differentiate these two sectors within the industry. It is unlikely that a thesis about theatre could be written without addressing Broadway in some capacity. I was unaware of many of these differences prior to my research. I would like to emphasize again Neil Mazzella’s spirit of generosity as the founder and C.E.O. of Hudson Scenic, for his time and assistance. I have rarely in my experience,
met anyone in such a prominent position who maintains such an attitude of helpfulness and generosity towards anyone asking for assistance.

**Interviews – Review and Assimilation**

One of the most fascinating questions during the course of researching this project was also one of the simplest (or so I thought when I began): “Is the technical director an artist?” The “yes or no” cut-and-dried answer seemed somewhat self-evident to me at the outset. However, upon examining the “why” behind the question, in addition to whether the technical director considers himself to be an artist, things quickly became more challenging. My hypothesis has long been and remains, that anyone participating in theatre (which is an art form) is contributing, either directly or indirectly, to the art. This paper has shown in considerable depth that the technical director’s contributions are hardly indirect. I do not believe that it is a contradiction of terms to say that although an individual’s contribution, albeit technical or analytical in nature, is any less artistic. (This is the only question from my interview process to which every single response is listed in the quotations section. I will utilize a few of the more specific and succinct responses in the text as well.)

EJ Reinagel, Instructor of Theatre Technology at Willamette University, has an unusual skill set even for a technical director. Technical direction combined with designing scenery and lighting is not unusual of in the realm of technical theatre, particularly in the academic world. However, his specialties in dance lighting and aerial choreography put him in a unique position to contribute to the discussion of artistry within the confines of technical direction.

Absolutely, yes I am an artist. I think it is the only reason why I have been able to do this job as long as I have. Being able to fully understand an artistic expression
from the designer’s point of view is crucial to working through the constraints a budget puts on a show, and allows one to build, if not the exact design, the essence of a design successfully. … Yes we have to deal with numbers and schedules and, in essence, a flat is a flat but every show forces us to create. Whether it is engineering or creative budgeting or scheduling, I think the best technical directors are very creative people who use that creativity to solve analytical challenges.

I find the idea of building the “essence of a design” to be particularly compelling. Any technical director (and most designers and directors) will tell you that very often designs are impossible to produce within the budgetary limitations of a given production. If that is the case and the technical director is not artistic, it is solely the burden of the designer to create a design that is manageable within the budget AND still adequately expresses his or her design aesthetic. However, within the current system, typically the designer, the technical director, and the director collaborate to solve the budget and the aesthetic issues simultaneously and (hopefully) to the satisfaction of all involved.

Reinagel’s answer to a separate question on whether the technical director is crucial to any theatrical endeavor may be the single most succinct argument in support of the artist/technical director: “We are the bridge between the creative and pragmatic world. We are the transformers of art into numbers and back into art.” This statement struck a chord with me because it visually laid out the process of the technical director and the subsequent interaction with art. Technical directors receive art from designers, and then through the course of their process that art gets broken down into dollar amounts for budgets and vast amounts of measurements and data necessary to facilitate building a set, which in its turn becomes art. Often, it doesn’t appear particularly artistic until it has been painted, which is yet again part of the art of the designer; however, if there were nothing to paint then the art
of the scenic designer would simply be that of an easel painter, never fully realized in three dimensions.

A different way of approaching this question presented itself in the answer given by Chaz Bell, Assistant Teaching Professor of Theatre Technology, University of Missouri Kansas City: “Designers make a drawing [which is] the art they want to create. Technical directors are the ones that actually construct the art. The set is the intellectual property of the designer, but we are the artisans. In most art mediums, the artist uses his own mind and hands to create the final product. With scenery, the designer uses his mind, but the technical director’s hands to create the final product.” I find his metaphor to be an apt one considering how much the art of theatre depends on the process of collaboration.

A different, but no less effective description of this relationship was presented by Henry Tharpe, Supervisor of Performance Services (retired), University of Missouri - Columbia, who said that the technical director is “…the one guy who brings the whole production together, provided he knows enough about all the different areas to do so. Too many technical people don’t understand acting and directing. Too many directors don’t understand technical things. So, if you don’t know both, you can’t do either, in my opinion.” It should be noted that it has been 35 years since Tharpe actively worked in the position of technical director, which is “a lifetime in this industry.” He also said that he “never had a job where he was solely the technical director or the designer, but always a combination of the two.” This gives further support to our evidence that the job has evolved into much a much more compartmentalized position. However, this does not negate the fact
that the more diversified one’s knowledge of the theatre, the more effective one can be at any given job within the industry, especially that of technical direction.

Despite my agreement with the previous statements and their support of the technical director as artist, I realize there is significant support for the opposing argument as demonstrated by my interviews. As was the case with Reinagel, the same is true of Jeff Roudabush, Director of Production, Barrington Stage Company, in that he was trained (at the graduate level at the University of Missouri Kansas City) in both design and technical direction, making him uniquely qualified to speak to the issue of artistry. His response to the artist question is as follows: “As a technical director? No. I am an artisan – a craftsman. I do not create out of nothing, I create the work of others. That’s not to say that what I do isn’t creative or artistic, but I am not creating something from nothing. A designer interprets a script and creates a design. I take all my knowledge and creativity and apply it to realizing that design.” Unlike Bell’s argument, Roudabush completely separates the advent and the implementation of an artistic idea. However, one could argue that there are many areas of art (particularly visual art) that do not create “out of nothing.” A sculptor has stone, wood, or clay that he transforms into art. The process has been described as finding whatever the finished product is within the medium of the artist’s choice.

There is a third perspective, which is to find the art in specific elements of the technical director’s process. Bill Shinoski, Technical Director for Kansas City Repertory Theatre, describes his drafting process and the subsequent working drawings as art. “In terms of drafting and the way it looks – that’s my art. … The way those plates look, and the output that comes from those plates…it’s an art to do that, to get all that information onto a
page and have everyone be able to read and understand it – that’s definitely a skill and an art.” I believe this concept could be expanded to multiple areas of the technical director’s expertise. When a flying effect or a scene shift is planned, engineered, and executed flawlessly, to the point of astounding and maybe confounding an audience (or even to the point of eliciting applause), I would describe the engineering, planning, and execution that went into that effect as art, although quite different in nature from a designer’s rendering or the technical director’s drafting. We have seen the diversity in answers related to the question of artistry and the position of the technical director; now let us examine other commonalities within the responses from the interviews.

The interview question on the most gratifying aspect of the job was one on which there was considerable common ground among the responses, albeit covering several different pieces within the same puzzle. There were many responses that pertained to seeing the cycle completed, from initial design to fully realized setting. Similarly there were several responses that lauded a successful collaboration and the results that can be achieved when this happens. There were answers that incorporated the element of the actual process or skills entailed in building things. Chuck Hayes, Assistant Teaching Professor and Head of Technology, University of Missouri-Kansas City, exemplified the most fundamental version of this view by saying that “building things” was the most gratifying aspect of the job of the technical director. Despite many instances where these specific words were not used, it is safe to say that the process of creating, specifically building and engineering scenery is a significant aspect of this job that draws many individuals to this line of work, and subsequently holds their interest throughout their careers.
Even more agreement within the interviews came in response to the question regarding the greatest frustration from the job. The majority of responses included limited resources – namely time and money, and the issue of adequately expressing and incorporating those concerns to the artistic members of a production team – mainly directors and designers. I want to be clear in expressing the point that this is not a vendetta against either position specifically, or against artistic production staff in general. Their job is far more concerned with ideas and with the final realization of a concept. One of the most important and potentially the most challenging aspect of a technical director’s job is the process of transforming an idea into a fully realized concept – on time and on budget. Bob Scales, Professor Emeritus, School of Dramatic Arts, University of Southern California, had a very succinct and optimistic take on this question saying that “Time and limited resources [are the most frustrating aspect]. This is also what makes the job exciting and interesting and challenging.” Expounding on the time and resources aspect, Roudabush again captures the sentiment by saying “high expectations with great limitations” was the greatest frustration. Connected to the previous concerns is the issue of decision-making, something the technical director deals with on a daily basis. There were multiple responses that indicated that a lack of decision-making capability from other areas of the production staff seriously inhibits the time management and efficiency parts of the job, in addition to frequently exacerbating the financial constraints as well. In spite of these constraints, and the subsequent concerns regarding other members of the production staff, the technical director must maintain focus and as positive an attitude as possible in order not to be overwhelmed by these challenges. However, one of the most interesting responses was from
Dennis Dorn, Professor of Theatre & Drama/Resident Technical Director (Retired) – University of Wisconsin-Madison, who connected the challenges and the technical director’s response to them by saying, “Being too optimistic about what can be accomplished with the talent, time and money available,” was the most challenging aspect. I find his statement interesting because it implies that the frustration may not lie solely in the challenges themselves, but in the technical director’s response to them.

Aside from the more opinion-based responses, there were significant findings from the questions based on numerical data as well. Included in my tabulated section is a section where each individual indicated that he considered himself to be a “specialist” in twelve different areas of technical theatre. It is not uncommon to have multiple areas of expertise (or at least proficiency – which many respondents indicated they preferred over the term “specialist”) in many jobs. However, we are not talking about simultaneous proficiency in Microsoft Excel and Microsoft Word; we are talking about specialties as disparate as rigging, project management, and drafting, each a very specialized field in its own right. In order to better understand the magnitude of what this question tries to ascertain, I include a response from Ben Sammler, Technical Director/Production Supervisor and Chair of the Technical Design and Production Department, Yale School of Drama: “Imagine the reaction you would get from an engineer if you asked them to budget, design, draft, order materials, build, install and troubleshoot a structural/mechanical project that would fill a 40’ wide by 45’ deep by 30’ high space IN SEVEN OR EIGHT WEEKS.” Sammler’s statement was in response to the question on why the technical director is crucial to any theatrical endeavor; it also helps demonstrate just how atypical these combined job functions are in most areas.
outside the theatre, especially considering the time constraints under which most technical directors typically function.

The majority of respondents included rigging, drafting, woodworking, and project management as areas of at least some proficiency, if not going so far as to proclaim themselves specialists. However, even within the various areas of design such as lighting and scenic, many respondents reported being proficient. This was expected for two reasons: first, we have already discussed the inherent assumption in many academic settings that a person must be, at the very least, willing and able to learn to function in both artistic and pragmatic capacities. Almost every individual interviewed either currently or previously worked in academia in some fashion. The second reason is that several people interviewed had graduate-level training in both technical direction and in at least one area of design.

Two of the items listed in the specialist question are quickly becoming more prominent and have become so fairly recently: green (environmentally conscious) theatre and the use of alternative materials. The concept of being “green” has not left the theatre industry unaffected. In some areas, advances in technology, such as LED lights, have had an obvious impact on a theatre’s bottom line; therefore going “green” has been appealing to multiple areas within the theatre organization. However, scenically this is often not the case. It’s quite true that theatre organizations with limited fiscal resources have been “green” for years in the sense that they reuse, recycle, and creatively reimagine virtually anything that can save money while still meeting the theatre’s artistic needs. Much of the time organizations with larger budgets are more concerned with the other resource in limited supply – time. There are aspects of recycling and reusing scenic materials that are far more
time consuming and therefore less appealing to these organizations. I found it interesting that roughly the same number of respondents expressed proficiency in green theatre as in alternative materials. I believe that as we move forward more organizations are going to become conscientious regarding these areas (whether voluntarily or involuntarily) and that consequently more technical directors will continue developing skills in these areas.

A final area of consistency in responses was that of entry into this line of work. Almost without exception every person interviewed learned about the position of technical director in academia, most at the collegiate level. There were a couple of younger technical directors who learned about the position in high school which corresponds to the increasing visibility of the job. One of the points within this area that I found fascinating was how many people came into this part of theatre unaware that it even existed, much less that it was an option for a career. Many respondents talked about taking a stagecraft class, or somehow ending up working in the shop, either for academic or monetary reasons, and simply never leaving. “…one of the courses I took was Intro to Theatre, part of it was for extra credit. You could work 40 hours in the theatre for a partial grade raise, instead of working 40 I think I worked 120 hours, became fully immersed in it and it was pretty much downhill after that” (Shinoski). Or even more circumstantial, “I had to take honors English in high school and theatre fit into my schedule” (Reinagel). There were also several people who did not pursue the job due to circumstances, but because it was a natural course of action subsequent to their involvement in theatre from a young age. Jerry Genochio, Producing Director at Kansas City Repertory Theatre, describes it this way: “I pursued it because it was what I had always done…even in high school. In high school I had a really active theatre program and
everybody was in rehearsal after school. We were the same people that were building the scenery, or costumes, etc. Because I also took building trades and construction classes in high school I was mostly responsible for building scenery.”

Many of the individuals who simply were in the theatre, doing many different things including acting and designing, eventually followed the path of technical direction not only because it fit their skill set, but pragmatically they realized that despite being fun, acting was impractical as a career choice. Rick Stephens, Production Coordinator (retired), University of Texas at Austin, remembers the contrast between considering a career as an actor to that of witnessing “every technician, technical director, and designer I saw leaving our program was in graduate school or working at a good-paying job and all of them were doing theatre for a living every day.” The earliest reference I gleaned from my interviews was from Henry Tharpe, who responded, “I went off to college with the idea of becoming an English teacher. I hadn’t been in college more than a month or two when I discovered the stage crew and got a job working on the stage crew, loving every minute of it. However, I had done theatre all my life. I started in 1936…it was preschool but I was in theatre.” These are two, out of several respondents, who had grown up in and around the theatre, particularly back when everything centered upon the concept of a theatre generalist, and who could step up and take on a variety of responsibilities to ensure a good production; these individuals made the choice to utilize their skills and their passion for theatre in a way that allowed them to make a career out of doing what they loved and what best suited their specific skill set.

Most of the interview respondents work or previously worked in academia so one area of interest to me was that of students. Being a student myself and having aspirations to
teach made me curious as to what technical directors thought about teaching and mentoring as part of their jobs. One of the most succinct responses was that “the students were the product, not the scenery. The shows were a means to an end” (Stephens). This statement demonstrates that technical directors, at least those working in academic settings, have much motivation in common with other instructors. They come to work as much for the students themselves as for whatever outcome is sought as a result of the classes they teach.

Genochio’s answer is uniquely relevant in that he was a technical director, and is now a production manager with different responsibilities:

> It’s the absolute best situation to be in, I think [having students]. … The fondest memories I have were teaching undergraduate theatre students about technical theatre. That was what I had the most joy at, not when I taught in the graduate technical direction program, teaching…some very specific technical things that were fun at a high-end level. What I got the most excitement out of was teaching, was seeing undergraduate students discover that there was something OTHER than acting that is still in the theatre and that they could have a career in this.

My summary, based on these statements, is that for as many people as got into this line of work because of the building and the technical elements, there are just as many who know or discover that the teaching and mentoring is as at least as important as the more pragmatic aspects of the job.

**Interviews - Broadway vs. Regional Non-Profit and Academic Theatre**

During the course of pursuing leads from one interview respondent to the next I was led to Neil Mazzella, founder and C.E.O. of Hudson Scenic Studios. I had no idea that this interview would lead to a critical clarification within the context of my research. Much of the research on the origins of the position of technical director were in literature on the amateur theatre which included the Little Theatre movement, academic theatre, community
theatre, etc. However, I did not make the connection to establish a distinction in modern terms until I talked to Mazzella. There are far more organizations that function as non-profit entities than there are commercial theatres in the United States today. Many of these non-profit theatres are very professional and their respective organizations are much larger and have better funding than many smaller local and community theatre enterprises. A few examples of regional theatres that are widely regarded as having high production standards include Seattle Repertory Theatre, the Alley Theatre in Houston, the Goodman in Chicago, The Public Theatre in New York City, and our own Kansas City Repertory Theatre. There are also many organizations that operate on a seasonal basis that would fall into a similar categorization – such as summer stock and Shakespeare festivals. However, none of these organizations fall into the category of commercial theatre. This is where Neil Mazzella and his world came into my research.

Mazella got his M.F.A. in Technical Direction from Yale in 1978. Thus far, he is like many of the technical directors in these interviews, with a graduate degree in technical theatre. However, Mazzella describes his entry to the field like this: “When I went there [Yale] everyone was training to go into regional theater to these jobs that you are looking into, but I had come from New York. I had already worked in New York and I was going right back to New York, and that’s why I never pursued that nonprofit world.” At this point I asked Neil to clarify the position of technical director as compared to his own specialty, that of the technical supervisor. His response is as follows:

A technical director, that term, specifically applies in my world, in my knowledge anyway to regional non-profit theatre. That’s the term they’ve always used. Now historically, that goes back to the 70’s and the theatres that were around then, that were major at the time were the Arena Stage, the Guthrie, Public Theatre in New
York City, Circle in the Square in New York City, Chelsea Theatre Center in Brooklyn, those were the major ones. There was also CTG in LA. But they used that word [technical director], and what they did was they hired someone because they produced their own productions. That’s the difference, a regional theatre produces its own productions, and in many cases they built their own productions so it was totally contained in-house. … Along comes Annie in the 1970s, there were no technical supervisors before the 1970s, it was all union employees, what they were called was production people: production carpenter, production electrician, production prop man – all union members, all working on stage, and were allowed to work on stage because they were production people. Strictly working for the show, not for the theatre, not for anybody but the show. So every time there was a show, a show hired their production crew. So along comes Annie, with all its success and all of its road companies, and two people invented the technical supervisor, who were Pete Feller Sr. and Arthur Siccardi. Pete Feller owned a shop and Arty was a production carpenter. [Now] instead of [only] being a production carpenter… Arty would no longer work the show at night – but he would go city to city to supervise the crews he hired to load it in.

This was all new to me, and I have been around the theatre for a long time. At this point I realized I needed to include this section clarifying the distinction between these two positions. I now knew, historically, about the advent of the technical supervisor position, but I needed further clarification on the specifics of how the job differed from that of the technical director as discussed in this paper. Mazzella’s continuing narrative provided a clear definition of his job:

…the show will hire a technical supervisor to manage the show. It’s a precarious relationship because all of the labor in the theatre is employed by the theatre owner but is being managed by the technical supervisor. The technical supervisor has to be in the shop, making sure he gets what he wants from the shop. Also, you’re overseeing the whole production. You’re overseeing all the budgets for all the departments including hair, wardrobe, costumes, sets, lights, sound, props, and video. You have to oversee all the budgets. You have to make sure you’re in touch with all the shops. You conduct the bid sessions for all these things. Then you hire your crew; you still hire a production crew but the number of production people you can hire is limited by the collective bargaining agreement of the town you’re in. So in New York City, on a big musical, I’m only hiring seven production people total. Three in electric, maybe two carpenters, and two in props.
Mazzella went on to inform me that all of these things were only true as long as the production was running. Much of this is substantially different from the way things work in academic or regional non-profit theatres where the job and the organization is more permanent and the shows are more fleeting.

In addition to receiving the same type of training as the rest of the technical directors interviewed, Mazzella had a similar story regarding how he got into the business. “I started work in Off-Off Broadway. … I stage-managed, I designed, I acted, I did everything. I gravitated to technical theatre and people started paying me to do it, which made a big difference. Then I went to Yale, and came right back. I got a job at the Metropolitan Opera house and stayed there until I opened Hudson Scenic.” In a similar story to those mentioned earlier about academic technical directors being more motivated by the students than the job itself, Mazzella had a similar statement regarding the most gratifying aspect of his job:

Owning three businesses and keeping between 80 and 100 people employed, so they can pay their rent, their mortgage, raise their kids. For me to do that, and I’ve done it for 32 years, that’s the most gratifying thing. A lot of people have been able to earn a living in this business because of what the Hudson companies have been able to do. So it’s not a show – it’s about the people. It’s about the people because you can’t do shows without the people.

Mazzella’s response to this question was right in line with the man I later met at USITT. He was being honored with a lifetime achievement award at the conference. The award ceremony was filled with people from many different areas of the theatre industry. I learned more about him and his company’s history and his contributions to our industry (which have been quite substantial based on what was presented at the conference). In spite of all of this, he took time to chat with me on the floor of the expo. The initial interview and subsequent in-person meeting were learning experiences in multiple ways for me: as a student, an artist,
and an individual. Now we have established, very specifically, the distinction between the technical director in academic and regional non-profit theatre and that of the commercial theatre of Broadway.

**Interviews – Blank Template Entire Interview**

**History/Biography**

Name?

Current Position? (or last held position if retired)

What is (was) the length of your tenure in your current (or last) position?

How many years have you worked as a TD?

  - Please list the places/dates you have TD’d or ATD’d.

How many shows would you estimate you have TD’d?

Who was your first TD?

  - Where?
  - How long had that person been doing that job? (a rough estimate is great)

Check any other technical positions you have held in theatre.

- Stage Hand/Production Assistant
- Scenic Artist
- Board Operator
- Fly Operator
- Head Rigger
- Follow-Spot Operator
- Master Carpenter
- Carpenter
- Electrician
- Props Master
- Other (Please list)

Check any other experience you have in theatre.

- Actor
- Stage Manager
- Designer
- Lighting
- Scenic
- Sound
What is the first occasion you recall encountering the role of TD? (Hearing about the job, working with or for a TD, discovering what the TD’s role was in a theatre, etc.)

*The goal of the subsequent questions is to trace your career into the theatre. Whatever method makes the most sense to you is fine, if my sequence or logic is not ideal.*

Describe the path that led to your becoming a TD.
- What made you decide to pursue this as a career?
- Did you come to theatre in a circumspect manner or did you always want to do theatre?
  - If so, did you always want to be a TD specifically?
- Do you have other aspirations in theatre – or is the position of being a TD a bridge to another preferred job?

What work experience outside the theatre did you have prior to becoming a TD?
(Did your work in the “real world” – i.e. – as a contractor, or architect, or project manager, etc., impact your decision to become a TD?)
- If you did NOT have prior work experience in the theatre, and used to be an…accountant, for example, and simply decided to become a TD one day (or were sucked into the dark side), that information is also highly relevant.

Job Specifics

Please check all that apply to your role in the design/production process.
- You attend pre-production meetings
- You attend production meetings
- You attend budget meetings for the entire company
- You get any input in the design process
- You are required to attend tech
- You are required to attend previews
- You are required to attend strike
- You would describe your role as the TD as integral to the production process

Please check all that apply to your current position.
You have a master carpenter

You have a purchaser who submits orders and acquires materials

You have full-time carpenters or crew

You have a shop foreman

You have an assistant TD or TDs

-If so, how are the job responsibilities delineated between you?

You have students working for you/with you

-If so, could you briefly describe how you feel teaching/mentoring factors into your job?

Please check all that apply to your position.

Your job is very “hands-on”; you are on the shop floor daily/very frequently building, welding, etc.

Your job is more “supervisory”; there are personnel under you who take care of the day-to-day operations; you are on the shop floor/stage occasionally for load-in or special circumstances

Your job is completely managerial; you have other TDs or ATDs who manage the actual physical process

You spend a large majority of your time drafting

Please describe your shop space(s) and your stage space(s).

Please describe your position in the hierarchy of your theatre.

-Who reports to you?

-Whom do you report to?

-What areas of budget or personnel are under your purview?

What is the average budget you are allotted for a production?

How much would you say your input is valued in terms of safety or budget concerns?

Please describe your job description as YOU see it. If you feel that your job falls within the “norms” of what you consider to be a TD job, please indicate. On the other hand, if you feel you engage in areas that should not necessarily fall under the purview of the TD please indicate. (i.e. – if you work in a place where you are also happen to be the designer, or master electrician, or prop master, etc.) In other words – does your current position meet the expectations of what you thought/think a TD job would/should entail?
Describe your ideal job – if you could work anywhere, with anyone, under any circumstances – what would it look like?

If you have access to your official job description, as listed by your theatre, please copy it, attach it, or send me a link to an electronic copy. (Any way that I can access that information is extremely helpful)

Opinion Questions

Among the many areas necessary to being a proficient TD, would you consider yourself a specialist in any of the following area(s)?

*Multiple areas are more than acceptable, I realize we are in the “jack-of-all-trades” business and a significant amount of expertise in most, if not all of these areas is necessary*

- [ ] Rigging
- [ ] Automation
- [ ] Drafting
- [ ] Woodworking
- [ ] Metalworking
- [ ] Alternative Materials
- [ ] Green Theatre
- [ ] Scenic Painting
- [ ] Sound Design
- [ ] Lighting Design
- [ ] Scenic Design
- [ ] Project Management

What, in your opinion, is the single most important thing necessary to being a successful TD? (This could be a skill, a character trait, particular training, etc.)

What, in your opinion, is the most gratifying thing about being a TD?

What is the most frustrating thing about being a TD?

What was the greatest learning experience you had as a TD?

What was the most memorable experience you had as a TD?

Why is the TD position crucial to any theatrical endeavor?

Do you consider yourself an artist? Why or why not?
Finally, if you have any suggestions for other resources, they would be most appreciated. (Books, articles, dissertations, other people I should talk to in the field, any kind of documentation that could help shed light on this position in the theatre, organizations that might have already collected information of this sort, etc.)

**Interviews – Assimilated Numerical Data – out of 19 Respondents**

**Check any other technical positions you have held in theatre.**

- 14 Stage Hand/Production Assistant
- 8 Scenic Artist
- 17 Board Operator
- 15 Fly Operator
- 11 Head Rigger
- 13 Follow-Spot Operator
- 16 Master Carpenter
- 17 Carpenter
- 15 Electrician
- 10 Props Master
- 6 Other (Please list) 1 – ATD, 2 – aerial rigger, run crew, 3 – sculpting specialist, turn-table designer, 4 – Crew Chief, 5 – welder, 6 - wardrobe

**Check any other experience you have in theatre.**

- 12 Actor
- 11 Stage Manager
- 15 Designer
  - 15 Lighting
  - 14 Scenic
  - 8 Sound
  - 2 Costume
  - 8 Props
  - 8 Director
- 11 Production Manager
___15___ Teacher
___3___ High School
___14___ College
___9___ Graduate

Please check all that apply to your role in the design/production process.

___13___ You attend pre-production meetings
___18___ You attend production meetings
___10___ You attend budget meetings for the entire company
___12___ You get any input in the design process
___14___ You are required to attend tech
___9___ You are required to attend previews
___16___ You are required to attend strike
___17___ You would describe your role as the TD as integral to the production process

Please check all that apply to your current position.

___12___ You have a master carpenter
___9___ You have a purchaser who submits orders and acquires materials
___10___ You have full-time carpenters or crew
___10___ You have a shop foreman
___13___ You have an assistant TD or TDs
___17___ You have students working for you/with you

Please check all that apply to your position.

___9___ Your job is very “hands-on”; you are on the shop floor daily/very frequently building, welding, etc.
___12___ Your job is more “supervisory”; there are personnel under you who take care of the day-to-day operations; you are on the shop floor/stage occasionally for load-in or special circumstances
Among the many areas necessary to being a proficient TD, would you consider yourself a specialist in any of the following area(s)?

*Multiple areas are more than acceptable, I realize we are in the “jack-of-all-trades” business and a significant amount of expertise in most, if not all of these areas is necessary*

- ___14___ Rigging
- ___15___ Drafting
- ___12___ Woodworking
- ___10___ Metalworking
- ___5___ Alternative Materials
- ___4___ Green Theatre
- ___3___ Scenic Painting
- ___2___ Sound Design
- ___6___ Lighting Design
- ___6___ Scenic Design
- ___14___ Project Management

*Le Hook wrote in “Figuring out how to make it repertory” for this category.

**Ben Sammler kindly pointed out that I omitted Structural Design (Sammler’s specialty) and Mechanical Design from this section, both of which are, in his words, “essential to being an effective TD today.”

Interviews - Selected Quotations

What was the greatest learning experience you had as a TD?
“Understanding, at times, building the scenery is the least important aspect of your job.”

**What is the most gratifying thing about being a TD?**

“*There’s nothing better than sitting there on opening night, when the curtain goes up and the audience claps because nothing else is on stage – all they’re doing is clapping for the set – because that’s what I built.*”

“Successful collaboration with a designer. Understanding and executing a design on time and within budget.”

“Designing and building all four puppets for Little Shop.”

“Solving an unsolvable problem in an effective and simple way.”

“Having your former students come back and tell you how wonderful you are.”

**What was the most memorable experience you had as a TD?**

“In the summer I hold talk backs for patrons. I explain the build process and the repertory process as we watch a change over. It amazing to blow patrons minds explaining to them that at the end of the day theatre is a hand made industry. We rarely go to the store and buy a set, costume, or lighting design.”

“Cloud 9...a lot of very organic fabric manipulation. I have long held that a TD has to be both analytical and creative. I was able to prove the importance of this to my classmates as we got the “feel” of the design without over thinking it. I didn’t draft specific pick points for the fabric, I just knew about where they should be and we played until we got it right.”

**What is the most frustrating thing about being a TD?**

“Dealing with people who are unable to make decisions. I make decisions every day, there’s nothing worse than waiting on somebody else to make a decision.”

“Time. Not enough hours in the day.”

“Designers turning in drawings extremely late and [TDs] having to make up the time for it somehow, because the show happens one way or another.”

“Budget.”

“Dealing with uncooperative artists.”
“Designs which drastically exceed budgets. Everyone thinks by substituting materials I can save thousands of dollars.”

“High expectations with great limitations.”

“Waiting for decisions. Politics.”

What, in your opinion, is the single most important thing necessary to being a successful TD? (This could be a skill, a character trait, particular training, etc.)

“I think the thing that has gotten me the farthest is my people skills. You have to want to talk to people in other departments.”

“An effective communicator because, if you can’t do that it doesn’t matter what else you can do.”

“Organization, it is possible to be a TD without being organized, but it is impossible to be a good TD without it.”

“A passion for problem-solving that meets the expectations (and sometimes the hopes) of both yourself and colleagues.”

“The ability to multitask. What this means to me: Organization of a wide amount of information and ideas and the ability to communicate and utilize that information in an efficient manner.”

“Ability to communicate effectively and quickly and not put people off/anger people unnecessarily.”

“Personality.”

“Patience and tolerance.”

“You have to be versatile and open (as in open-minded) – be able to hear all the sides of an argument and then make a decision.”

Please describe your job description as you see it.

“...I always said I was the grease. My job was to get the manpower and the plans and the materials with enough time to get it done.”

Why is the TD position crucial to any theatrical endeavor?
“He is the glue that brings all departments together.”

“It is the supportive element that realizes the vision of the artistic elements of the production. It makes real the vision.”

“TD’s get it done. They are the ones that carry the project from concept to reality.”

“Real Estate and Resource Manager. All tech areas focus on their specific needs—the TD must coordinate everyone’s needs and coordinate time and space available as well as personnel required to meet the deadlines.”

“Leading question. When the TD position is crucial to a theatrical endeavor is when a certain level of complexity is reached. I don’t believe that a TD is necessary for any theatrical endeavor. Let me give you an example:

A dance company from Brazil, Mimulus, came to Jacob’s Pillow. They brought the largest set of any non-balletic dance company I had encountered to date. They brought their scenic designer with them and no TD, which I thought was strange. This gentleman was actually an architect back in Brazil and worked with the dance company as a side project. He had created this whole design from scratch. There were drops, hard flats, tracking units, and he had engineered them all as well as designed them. I thought to myself, “Oh, this guy is really a TD with some design skill.” Over lunch, after load-in, I brought this concept up to him. He could not understand why a designer would not know how to build something. I explained that in the US, our designers were not responsible for engineering—that was the TD position. He explained that while he had specialists who helped him with steelwork, etc. the basic engineering required to build a building or a set was something designers were expected to know. I remember him speaking of UNITY as an overarching concept. Basically, one had to know design to engineer and the same in reverse.

So, I would push the question back to you… if a designer can engineer, why would a TD be necessary?”

“This position is pivotal in maintaining the budget, safety and organization.”

“They are the person in charge of safety. They are also the person who engineers the most dangerous part of the scenery. Everything that moves or flies or people walk on. They also work with roughly 30% of a production’s budget. … They are also the main communicator and planner.”

“At the very base, safety and oversight are an incredibly important to any show.”

“Someone competent must turn dreams into reality.”
“Having someone to manage the production process.”

“If you want scenery you have to have someone who can do it. I have always told people that my function as a TD is as an engineer is to an architect – somebody poses a problem and I solve it. I am also the general contractor, and the construction and demolition expert.”

**Do you consider yourself an artist?**

“I am not an artist, but a facilitator of art. I must understand the art.”

“No, I have a craft that I use to let others express their art.”

“I consider myself to be creative and not an artist.”

“The TD needs to be a master technician/craftsperson or at least someone who supports those traits in others and recognizes good work in this area or can direct good work. I’m not sure being an artist is a goal of the TD. Being true to the vision and artistic elements of a production is the goal.”

“Absolutely. Ben Sammler has promoted a job title that I believe fits the TD perfectly...technical designer.”

“Yes. As an enabler I need to understand what the design and directorial objectives really are and massage the expectations to coincide with what can reasonably be delivered given the time, budget and personnel. The scene design is a prototype and my job is to make it all work. It’s all one big assembly view. What can be adjusted without sacrificing the aesthetic? TD’s that have a poor aesthetics make bad choices – typically in proportion. When productions have scene changes that involve wagons, lifts etc., the TD must communicate the limitations dictated by physics to the designer and director.”

“I go back and forth on this. I think I do artistic things, but I am probably more of a craftsman. I draft and interpret design elements, but it is in a very technical way. I take the ramblings of an artist and make them into a physical form that won’t kill people when they dance on it.”

“I do not consider myself an artist. I consider myself a creative problem solver, but I approach problems analytically. Even when I design scenery or lighting, I feel I do it within an analytical framework. ‘What needs to be accomplished?’ - this is how I go about that. I do not think that inherently TD’s are not artists, I can see a way that many aspects of this job could be done from an artistic place, but my approach is not that of an artist.”
“Absolutely. Though technical in nature, the art of TDing is in making the most elegant and cost-effective choices (time and money) in achieving the overall effects.”

“Yes. I think the TD needs to be an artist. Whether he is or not is a different question. Ideally he should be an artist. Not an artist in the same sense as a director or designer. But there is some art involved...even if it’s just the art of compromise.”

“In some degree yes. I’d rather consider myself a technician. I am the practical person, I deal with reality. The reason I don’t like scene designing, is that I problem-solve as I design. That’s not necessarily good for the design itself.”

“No, an artisan. I would use the term artisan. ... The term works for me because I always put that my job was to take the picture in the designer’s head and put it on stage. ... You draw it on the page, I’ll put it on the stage.”

“...if you’re in this [theatre] because the only thing you want to do is to figure out some technical problem, there are other ways to do that and get paid a lot more money with a lot less headache. If that’s really what you want to do, I suggest you do that somewhere else. But if you think of yourself as being part of an art form...and I don’t know where this saying comes from but if art is to exist anywhere then it has to exist everywhere. I think that as a practitioner on the inside – it does make a difference. It makes a difference in little things like how you hold the router. How and where you start on the piece of wood, how you start on that piece of wood and how you finish. The finesse of moving it around, how you start your cross cut with a circular saw. It seems like it would be less vital on something like a radial arm saw, but it matters. It matters in how you’re thinking about it, how you line it up with the blade, what’s your thought process on it. All those little details matter and that’s the thing about the artist is that it has to be important to you beyond the thing you’re doing. Every little piece is, whatever analogy you want to use – it’s all greater than the sum of it’s parts. Every part HAS to be thought about artistically. It all matters. I think that, as a TD to think of yourself as an artist, it roots you firmly in the process, in the creation of the art.”

(Specific follow-up question from the same interview)

So for you it’s more about the specifics of the minutia of the process...you think there’s art involved in any other part of the management, the time management?

“I do. Absolutely. It does go beyond that. The ART of the technical director is the seamless transition between things, like building the flat and working with the staff, talking to the carpenter about what he/she is going to build...how you do that, how you make them feel about what they’re going to do and what you’re doing. It’s definitely an art. To also recognize that there may never be a face to it. ... I think
it’s, part of being an artist is assigning what is important about what you’re doing in all the things you’re doing. Why does it matter that we think about this in an artistic way? I think it matters because it’s part of the art form. You’re adding to what’s onstage, and when you do that, when you recognize as a technical director that you are PART of it, you are not THE reason for the art but you are part of it, then you start to recognize all these other things. ... And I think, for me, it always added a greater meaning to what we were doing. Knowing I was part of it, that I was helping create it. Thinking about it as an art, and how it related to all the other parts.”

“Yes - Creativity and having an artistic sensibility are very important components in engineering and problem solving. Although the end result of our work originates from someone else’s design, ultimately there is a certain amount of artistic interpretation included in the TD’s process of design evaluation. Good examples are offering up different materials or processes to the designer that they hadn’t considered, often resulting in a re-thinking of the preliminary design.”
CHAPTER III
HISTORY – PART 1

The theatre is a place where many people bring very different skills together to create a unified work of art. This is particularly true on the production side. It is not always clearly delineated who must make something happen or how, but as the saying goes: “the show must go on.” A technical director may assist the sound department with the hanging of a speaker, stage management may assist electrics with focusing a light, or paint brushes may be handed out to every able-bodied individual in the building in order to have a painted set for the preview that opens in twenty minutes. Because of the very nature of the art, the challenge of forming an accurate image of the status and hierarchy of technical theatre in the early twentieth century is indeed daunting. Many technicians, at all levels both historically and currently, do not consider what they do to be of historical importance. Many technical theatre practitioners do not have the time or inclination to record their processes. In my experience, many people who work backstage – whether in prominent positions or not – are there because they do not seek the limelight. For many, it would simply never occur to them to attempt to write a book. They are craftsmen who would rather actually do something as opposed to writing about the act of doing something. This is not to say that there are not books regarding both the historical and the pragmatic elements of technical theatre. However, there are many things taken for granted in the literature that does exist.

The delegation of job responsibilities in a theatre is often a murky subject at best. As previously mentioned, the job description for a technical director can be incredibly diverse. (I just read a Technical Theatre job posting at an academic institution that requested...
experience in stage management, lighting design, scene design, technical direction, scenic painting, and costuming.) Depending on the circumstances and the producing organization, the job description can also be somewhat vague, and that fact can sometimes be intentional. The less specific a job description, the easier for the producing organization to determine certain elements of production that DO fall under the technical director’s purview – even if they most likely should not. For example, in a smaller producing organization, such as the proverbial (or sometimes literal) “one-man department,” the technical director may be the most likely candidate in the building to have basic electrical experience, and thus the least likely to burn down the building while doing things related to electricity. Therefore his job description evolves to include tasks which may or may not be more suited to a master electrician. If sorting out this information regarding current technical directors (and what they do) is difficult, then doing so for the origins of the job over one hundred years ago presents an even greater challenge.

The earliest reference to a technical director, as an official position, dates back to 1903. We can be reasonably sure, based on the source material, that the position has many things in common with our current job of the same name. I received considerable help in gathering this information from the archives (and the archivist, John Tomasicchio) at The Metropolitan Opera in New York City. In an article in the New York Times (May 14, 1903), titled “Conried Tells His Plans,” we learn that “the new impresario and Carl Lautenschlager of the Prince Regent Theatre, Munich, who will remain permanently with Mr. Conried as technical director, have just completed the plans for the rearrangement of the stage, and work will be begun on it next week” (p. 9). This is a passing reference and the
only mention I could find of Lautenschlager. The archivist at the Metropolitan regrettably had no contract or further information on Lautenschlager. However, the reference demonstrates a couple things: first, that the term wasn’t completely foreign because the author doesn’t attempt to clarify the position in any way. Second, it demonstrates that the concept and the position were more clearly delineated in Europe than in the United States. Much of the Metropolitan’s stage business (designs, designers, materials, performers, etc.) was imported from Europe and it would seem only natural to import the position of technical director as well. However, we will later investigate how the job has evolved quite differently here than abroad. Our next example provides significantly more insight into both the nature of the job, how the position was considered within the organization and compensated, and a more complete portrayal of a technical director in the person of Edward Siedle, technical director at the Metropolitan Opera beginning in 1908.

On May 11, 1908, Edward Siedle was hired as the Technical Director for the Metropolitan Opera Company. The contract (see Figure A on next page) indicates that he was hired for a three-year term and was to be paid $3,500 for the first year, $3,750 for the second, and $4,000 for the final year which would be 1910. According to the currency conversion calculator of The Federal Reserve Bank of Minneapolis, that salary would amount to roughly $95,000 in today’s currency. Given that amount, this must have been viewed as a very important position to the organization. The technical complexity of opera increases the demands placed on such a position, as does the wide array of specialties that fall under the purview of this position. According a 1915 New York Times article (September 19, 1915), titled “Metropolitan’s Diamond Horseshoe Under Cover” the
complexities of this specific position were further compounded by the fact that every day brought a different show with different sets:

But at the Metropolitan a different work is given at each performance, and for this reason the material cannot be stored on the stage between performances. The technical department there is confronted with the task of hauling an entire production from the storehouse and setting it up at each performance, then hauling it back to make room for another. The only salvation where such an intricate task is involved is in having a technical staff that knows every inch of the stage, every piece of scenery in every scene, and exactly what particular part of the work each man is to be engaged on at a given moment.

Siedle’s contract further describes the job responsibilities as follows: “…the position of TECHNICAL DIRECTOR as hereby delegated to said Edward Siedle shall embrace the control of all departments behind the curtain, construction, supplies and contracts pertaining to carpenters, stage hands, properties, electrical, scenic, flying machines, etc.” We can see from this job description that the position covered quite a wide array of specialties. It is also apparent that the job was not simply that of a glorified carpenter, even at this early stage in its history. The aforementioned changeovers from one opera to another would have required immense planning with special attention given to efficiency and time management. Still today, these skills would certainly fall near the top of the list of desired attributes in a technical director. There is a nice cross-reference to Siedle’s position in a book called *Play Production in America* by Arthur Edwin Krows, which was written in 1916, right in the middle of Siedle’s tenure at the Metropolitan:
AGREEMENT, made this 11th day of May, 1908, BETWEEN the METROPOLITAN OPERA COMPANY, of New York, hereinafter called the Company, AND, EDWARD SEIDLE, of the same place, WITNESSETH:

IN CONSIDERATION of the covenants and conditions hereinafter contained, the parties hereto agree as follows:

1. The said Edward Seidle agrees to render to the Company, its successors and assigns, or to such companies or persons as may be designated by the Company, during the term of this agreement, such services as TECHNICAL DIRECTOR, at the Metropolitan Opera House and in such other Opera Houses, theatres, places of entertainment, etc, as may be required of him by the Company or its representative.

2. The Company engages the said Edward Seidle and the said Edward Seidle accepts the engagement, as TECHNICAL DIRECTOR for the term of three (3) years, commencing May 1st, 1908.

3. The Company agrees to pay the said Edward Seidle a salary of $3,500 for the first year, $3,750 for the second year and $4,000 for the third year of this agreement.

4. IT IS UNDERSTOOD AND AGREED that the position of TECHNICAL DIRECTOR as hereby delegated to said Edward Seidle shall embrace the control of all departments behind the curtain, construction, supplies and contracts pertaining to carpenters, stage hands, properties, electrical, scenic, flying machines, etc.
“Before electricity was employed to run the lines at the Metropolitan, twenty-eight flymen were necessary to handle the sixty-three sets of rope. A veritable set of books is kept there under the supervision of Edward Siedle, the technical director, to indicate the lines to which each drop is to be fastened, the act the drop is to be used in, how high it hangs from the stage, when it is to be taken up or down, and other details” (Krows, 77-78).

Gauging by this quote, we can add extensive rigging practice and supervision (both historical and modern – after the implementation of electricity) to the list of items under Siedle’s purview.

Siedle held the position of technical director from 1908 until 1927. His pay doubled between the last year of his initial contract in 1910 and his final contract which began in 1924. The $8,000 salary he received during his last three years would amount to almost $110,000 per year in today’s currency; this shows that the importance of the position did not diminish, but it increased substantially during his tenure with the opera. Further links between the modern technical director and Siedle may be found in another New York Times article of September 26, 1909, titled “Early Preparations for the Season at the Metropolitan” which states that, “While ‘Lohengrin’ is not to have entirely new scenery, the old scenery has been altered almost past recognition under the direction of Mr. Siedle” (p. X6). The same article also informs us that “the changes in the second act of this music drama have cost, so says Mr. Siedle, in the neighborhood of $500,” which clearly demonstrates that budgeting was within Siedle’s purview. Another significant parallel stated in this Times article is that “when an entire set is completed it is put up on the stage and photographed. The photograph forms a part of Mr. Siedle’s report. Then a ‘scene plot’ is made, so that the stage manager may know how to put it together again.” Here we have a clear picture not only of the technical director generating paperwork and documenting a show’s physical
process, but the “scene plot” would almost certainly correlate to modern drafting. A final quote from the same article demonstrates just how diverse Siedle’s job actually was, “Mr. Siedle has a suite of rooms for his own study in the second floor of the building. Here there are books on every sort of architecture and every sort of costume. There are scenic models for many operas which have been given in the past at the Metropolitan, and scenic models for operas which have never been given and now are not likely to be.” Based on the presence of books on costumes we can assume that he was involved, at least to some extent, with the design and/or implementation of the costumes in addition to the other areas mentioned in his contract. Based on the models and books on architecture we can reasonably assume he was involved not only the implementation but in the design aspect of the scenery as well. This is further supported by a quotation from yet another New York Times article (September 25, 1910) titled “Puccini’s New Opera First to be Seen in New York,” “…it immediately occurred to all of them that as the play was American it would be better to have the costumes and scenery made here. Consequently, Edward Siedle, the technical director of the Metropolitan, was called in to the consultation. Upon Mr. Siedle’s return to new York he and James Fox, the scene painter of the Metropolitan, set to work to contrive settings worthy of the institution” (p. SM12). (The opera in the article was based on David Belasco’s Girl of the Golden West.) The article goes on to mention that, “…Mr. Siedle provided a compliment of sunlight and shadow which made unique stage pictures,” which gives evidence of his involvement with design and implementation of lighting as well.
Interestingly, the Metropolitan has no records of a technical director between 1927 and 1947. In 1947 Richard Rychtarik was hired for one year at a rate of $7,000. (The current equivalent is approximately $74,000. The decrease in monetary value could be attributed to the Metropolitan’s budget, the general economy, or perhaps could demonstrate exactly how valuable Edward Siedle was to the organization during the first quarter of the twentieth century.) Rychtarik’s contract (see Figure B on the following page) has a slightly more explicit job description that Siedle’s: “Without in any way limiting the scope of your activity, it is understood that you are to supervise and coordinate the work of the Carpenter, Property, Electrical, Scenic and Costume Departments.” The Metropolitan archivist’s description of Rychtarik was that he was a “costume and scenic designer” which further demonstrates the historical overlap between the design and implementation fields. In spite of his contract stating that the Metropolitan could renew his tenure for the following season, Rychtarik resigned in order to take another position in the spring of 1948. Whether the position was in design or technical direction could not be determined. Fortunately, despite the missing years from the Opera’s history, there are other data we can follow between the 1920s and 1940s.
Figure B – Richard Rychtarik’s 1947 contract with the Metropolitan Opera Company
One of the earliest records of the technical director as a firmly established institution in an academic setting can be found in Philip Barber, the technical director at Yale in the late 1920s. Barber became quite the Renaissance man in the entertainment industry. In his New York Times obituary (May 27, 1981) he is described as “a dramatist, writer, and public-relations consultant” who “taught playwriting at Yale University, directed the Works Progress Administration’s Federal Theatre Project in New York in the 30’s and was technical director and play consultant for the Group Theatre. He was also a screenwriter for M-G-M in Hollywood and a writer in New York for such radio shows as ‘Gangbusters’ and ‘Young Widow Brown.’” He also co-founded the Manhattan Theatre Club in 1970. Interestingly, nothing in his obituary mentions his published work on technical theatre, which was written extremely early in his career (and was subsequently revised and reprinted over the next 40 years) and has proved to be one of the cornerstones of all the published material in this field.

Barber quite literally wrote the book on the subject, namely *The Scene Technician’s Handbook*, which was published in 1928 and is the earliest example of a technical director creating a written record about his own job function. I should point out that only once does Barber actually clarify the job title by saying, “The Scene Technician (or Technical Director)…” (Barber, 2). This demonstrates that from the outset, the job title was somewhat fluid, although the job requirements and specifications were clearly delineated by Barber in this work. A somewhat lengthy quotation from the first page of *The Scene Technician’s
Handbook gives us a concrete job description for the technical director. I include the passage in its entirety because of the profound impact of examining, in great detail, the job functions laid out 85 years ago, many of which still hold true today:

The Scene Technician is responsible for the building of the scenery according to the Designer’s plans, the securing and making of the properties, and the handling of the scenery and properties on stage. He must care for all tools, equipment and materials which he uses. The Scene Technician is responsible for smooth working relations between his various crews. This will be obtained through a sound organization. The Scene Technician must maintain high standards of work. He must consistently check materials, scene and property construction, tools and equipment, handling of scenery and properties, and the organization itself, in order that a high standard of accomplishment be maintained. The Scene Technician is responsible for economic accomplishment of these duties. The final test of his efficiency is the relative simplicity and ease with which he is able to gain his ends. He must buy the best materials as cheaply as possible, use them with a minimum of waste; he must utilize the manpower at his disposal with as little wasted effort and as little friction as possible. The Scene Technician works primarily with the Scene Designer. He realizes and makes possible the conceptions of the Designer, translating the Designer’s sketches, plans or model, into full-scale scenery, adapted to the stage on which it is to be used, and to the special physical demands of the play. In so doing he brings to the service of the Designer a knowledge of joinery, carpentry, mechanics, and a host of minor crafts. From each of these crafts he selects all technique and method that can be of use, and these he combines, with necessary modifications, to form his own craft, the craft of the Scene Technician. The Scene Technician must cooperate actively with the Director, the Lighting Artist, the Costume Designer and all other members of the producing organization. The success of a theatre organization depends upon a sound, well-balanced, economic life. This to a large degree depends upon the efficiency and common sense of the Scene Technician. Between a fifth and half of production expense is represented in scenery and properties. Excessive waste in this department may mean the failure of a theatrical enterprise.

Barber concludes his job description by saying that the failure of the technical director can directly correlate to the failure of a theatrical organization, and yet, the job manages to maintain relative anonymity (or at least a less than formally acknowledged presence as an institution) until the late 1960s and into the 1970s when it finally begins to come into its
own within the academic and regional theatres. One key point in this job description is when Barber discusses the technical director taking the designer’s concepts and turning them into actual scenery and thus creating the physical world of the play. This will be a recurring theme throughout this paper as we examine the fine line walked by technicians serving as artists and vice versa. Another of the many critical points highlighted by Barber’s description is that of collaboration with the other departments involved in the production process. Finally, we can see that even 85 years ago, efficiency and economy were two of the preeminent concerns of the technical director, and they remain so to this day.

Another valuable insight provided in Barber’s book is that of the organizational structure within the producing organization. (See Figure C on the following page) Barber goes on to specify how the structure might differ in the Little Theatre (what we would consider community theatre) as opposed to the academic arena. “The Amateur or ‘Little’ theater works on a smaller scale. It is seldom able to afford more than one paid worker, the Director, tho (sic) occasionally, and increasingly, the Director is assisted by a ‘Technical Director,’ who combines in one person the functions of Costumer, Scene Designer, Scene Technician, and Lighting Artist, and who may in addition work as a member of the crew” (Barber, 2). Here we have, not even a full page after his complex description of the technical director’s responsibilities, his acknowledgement of what we have already seen in the person and position of Edward Siedle as Technical Director at the Metropolitan: namely that the role of the technical director had been, and would continue to be incredibly diverse. Despite Barber’s designation of these diverse responsibilities to the technical director
Figure C – Organizational Chart from *The Scene Technician’s Handbook* (1928)
specifically in the “amateur” theatre, we will see this as a recurring theme in academia, and even in many of today’s regional and seasonal theatre festivals. One benefit of Barber’s publication is that we have the opportunity to watch the duties evolve over almost 40 years. This is relevant because of the significant technological changes that took place in the industry during this time period.

In 1941, thirteen years after Barber’s initial publication, John Gassner published *Producing the Play*. Gassner was a prolific author and critic, publishing more than twenty works during his career in the industry. In his New York Times obituary (April 3, 1967) he is described as the “Sterling Professor of Playwriting and Dramatic Literature at Yale University and a renowned critic, teacher and anthologist.” Gassner and Barber may have crossed paths at Yale, or possibly during their respective tenures with the Group Theatre; or these two iconic figures from the first half of twentieth century theatre history certainly had ample opportunity to encounter each other amidst all of their engagements related to theatre, whether academic or professional. Whatever the case, the stars aligned when these men joined forces on *Producing the Play*. In his preface Gassner discusses his intentions for writing this book, “Perhaps the sole justification for adding another book on play production to the present list is the importance of combining the esthetic and practical aspects of the subject in approximately equal portions” (Gassner, vii). It should be noted that his use of the term “play production” is not limited to technical theatre, but is concerned with many different elements of theatre including acting, directing, theatre organization and management, staging, types of theatre spaces, and designing, to name a few. Later in his preface Gassner thanks Philip Barber for his “willingness to revise
his valuable *Scene Technician’s Handbook*, which now constitutes a book within a book…” and finally says, “From a practical standpoint, it is the most valuable part of the present work” (Gassner, x). This is a considerable compliment considering that in the original 1941 publication, Gassner’s section of the book was almost 600 pages and the subsequent revision in 1953 was almost 700, and extremely thorough and informative in its own right.

One of the interesting things about Gassner’s book is that it contains dichotomous information related to the position of the technical director. We know from his preface that Gassner had respect for the position. In a section about design titled “Realization from Design to Stage” Gassner informs us that, “The man who builds scenery must be one of the most ingenious and responsible workmen in the theatre,” (Gassner, 335). However, on the very next page is the following information:

While the scenery is being built, the designer must visit the carpenter shop or wherever the scenery is being built, to be sure the work is going well. … The routine of supervision is sometimes taken over by a technical director. Although technical directing is a specialty, the technical director as an institution is seldom met with in the theatre. The job is usually *ex officio* to other work. It may be taken on by anyone from the designer’s assistant to the business manager.

This quotation is particularly useful in terms of defining why this job has existed as long as it has, whether formally or informally, and yet the recorded information is as sparse as it is. These two quotes taken together also provide a context in which we may see one reason why the job has such overlap into other positions within the theatre that are more clearly defined. I find it fascinating that the job, according to this book, can be stated to be a specialty, and yet almost anyone, with any level of qualification, is capable of fulfilling the position.

Another point of interest is that Barber’s 1928 publication, although lacking an actual index has many definitions of common terminology in the back, however “technical director” (or
even “scene technician”) is not among them. However, Barber’s revision for the 1941 publication includes an index and “technical director” is among the terms listed. The interesting component is that Gassner apparently compiled the index because the entry for “technical director” refers to a couple of indiscriminate mentions of the job, and then says “see also – 572 – 733” (Gassner 743) which consists of Barber’s book in its entirety.

Gassner’s conclusion, it would appear, is that the job requires a 150 page manual detailing the specifics of the position, but just about anyone in the building should be able to undertake the role. In order to help complete the image presented in this volume of seeming contradictions I include one last quote from Barber in the 1941 publication that was not in his original in 1928 (Gassner, (Barber) 593-594):

> As should be evident by now, the art of the theatre is a tremendously complex one. The theatre technician must have skill as a carpenter, mechanic, metal worker, painter, cabinet-maker, rope worker, draftsman, electrician, model-maker, naturalist, interior decorator, chemist, tailor, and diplomat. He must know how to imitate a lion’s roar, build a bridge, upholster furniture, manufacture grass, make an avalanche, and shift and set up complex sets of scenery in one minute. Because of the unequalled complexity of the technician’s work, which must be done under great pressure, working against time, and with temperamental people, the theatre technician must above all else be a organizer and executive.

The image created here is a job of immense diversity and creativity, not to mention responsibility. Despite considerable overlap into various other departments, I do not believe it would be remiss to say that any skill from this list could still fall under the purview of a technical director in today’s theatre depending on the type of producing organization in which he or she works.

1928 was a significant year for the field of technical direction in that not one but two works were published by technical directors in academia. One was Philip Barber’s at Yale;
the other was published by Samuel Selden at the University of North Carolina. As was the case with Barber and Gassner, Selden had quite the stellar career in theatre that spanned the country and many different facets within the industry. According to a memorial article published by the University of California in 1980, Selden “became recognized across the country as ‘Mr. Educational Theatre.’” The article goes on to describe his career of more than thirty years at the University of North Carolina at Chapel Hill, and his subsequent post as chair of University of California Los Angeles theatre department. His career included time as a “professional stage manager, actor, and designer in New York and at the Provincetown Playhouse…” (In Memoriam, 1980). He held prestigious positions in many organizations, directed more than 400 academic productions, and several of his published works became for many years standard works in their respective fields. Yet amidst all these accolades we are presented with a recurring conundrum: nowhere is he mentioned as being a technical director, nor as a pioneer for publishing one of the very earliest texts in the field.

In 1928 Selden published a small book called Scenery and Lighting for School and Little Theatre Stages. On the title page Selden is listed as the “Technical Director, The Carolina Playmakers.” This book is historically important as one of the two oldest “how-to” technical theatre manuals in the canon. However, of even greater significance is the subsequent publication in 1930 of Stage Scenery and Lighting: A Handbook for Non-Professionals written by Selden and co-authored by Hunton Sellman. Selden’s original manuscript is carried over almost in its entirety into the 1930 publication. Again, on the title page Selden’s title is listed as “Technical Director, The Carolina Playmakers,” however this time “University of North Carolina” is included. Sellman, his co-author, is listed as
“Technical Director University Theatre, University of Iowa.” This is significant because it demonstrates that the position was not limited to the east coast, and was possibly more common than the scant records would indicate. Here we have a third program at a large state university that has a fully realized position. This also provides further evidence against Gassner’s comment about the position being “ex officio” (Gassner, 335), because if the position is fully recognized by three separate universities, in three distinct regions of the country, between 1928 and 1930, then it was simply not a job that could be done by just anyone.

At this point it should be noted that Selden and Sellman’s book was revised and reprinted in 1938. This is worth noting because among the many revisions the title page was also revised. In the 1938 version Selden’s title reads “University of North Carolina” while Sellman’s reads “University of Iowa.” The omission of the position of technical director may appear insignificant, and may have been insignificant, but in light of the discussion of a lack of early evidence for the position I find the omission to be striking. Much of the 1930 version is simply reprinted in the 1938 edition and the revisions are predominantly additions in the form of chapters and subsections (specifically on lighting) to keep up with rapidly changing technology in the industry. Why would they make a point of changing their titles? In the case of Selden, it could be due to a change in his status at the university. The emphasis of only the university may have indicated his rise to the position of department chair. However, I have a different hypothesis and in order to more fully explore the question we must evaluate the nature and goals of the book.
To begin, there is not a single mention of the term “technical director” anywhere in the body of the book, nor in the index. Neither is the term “scene technician” employed in an official capacity. “Stage technician” is mentioned, however, in context it would appear to refer more accurately to a stagehand, rather than anything corresponding to the role described in Barber’s handbook. I believe that fundamentally Selden’s primary goal in writing this manual, as stated in the title, was to construct a “how-to” manual for non-professionals – namely academic theatre and theatres associated with the Little Theatre movement, which we would refer to as community theatre. The book is full of very detailed information on the process of creating technical theatre. (See Figure D, the Table of Contents from the 1930 publication on the following page.) Selden may have intentionally omitted any reference to his position in the text, because his intended audience likely would not have such a position in their organization. Likewise, I propose that Selden and Sellman dropped the title of technical director, at least in part, to try to increase the accessibility of the work. Considering the nebulous nature of the position (both then and now) and the daunting task for amateurs attempting to learn the trade of technical theatre, perhaps the authors thought their work more approachable coming from the standpoint of mere academics. If, for example, someone starting a small theatre company that could not afford to fill the position of technical director had wanted to use Selden’s work as a basis for running their theatre, the book might meet its goals more effectively if no position were specified to fulfill certain job functions. Perhaps the title of “technical director” created a barrier between the authors and the students of their trade. Whatever the reason, this book is rather atypical in the quest to find historic documentation of this job in that there is more
Figure D – Table of Contents – Stage Scenery and Lighting: A Handbook for Non-professionals (1930)
evidence in the earlier volume than the later, if only on the title page.

In spite of the lack of position-specific terminology, there are some things we can take away from Selden’s book(s) (in all three stages of publication). “Safety is the first law of the stage, as it is everywhere else” (Selden, 1928, 25). This is a striking quotation, one which could spark a lively debate in any theatre setting anywhere in the country today. However, as an M.F.A. student in technical direction, I am inclined to agree. I am also inclined to say that this mantra is as true today as it was 85 years ago when it was written.

The book, in all three editions, clearly emphasizes significant overlap between the design and technical elements of production, which corresponds nicely with the other source material we have seen from this period. For example, “Most of the time and temper so frequently wasted in refitting awkward pieces to the mechanical demands of the stage could be spared by a little more thoughtfulness on the part of the person who lays out the working drawings” (Selden, 1930, 174). We have already mentioned (and will do so again) the difference between design drafting and working drawings. In today’s theatre, the designer generates drawings that demonstrate their aesthetic which are translated by the technical director into working drawings complete with all the requisite information needed by master carpenter or shop foremen to facilitate the carpenters during the building process. The modern technical director is the person laying out the working drawing and is certainly responsible to ensure the scenery is as effective and efficient as possible. However, Selden made no such distinction between designer and technical director. In an earlier chapter Selden stated that working drawings are “usually supplied to the carpenter by the artist who designs the set” (Selden, 1930, 84). In the same chapter, conveniently titled Construction of
Scenery, General Practice, Selden covers topics ranging from purchasing and sizing lumber to flame-proofing scenery to very specific types of joinery and which are more suited to certain scenic applications. These are all elements currently taught in most typical M.F.A. programs in technical direction, but most likely not covered at all as part of a scenic design program at the same level. This concept is further exemplified by many of the illustrations from the 1928 publication. Many of them are actual production photos from The Carolina Playmakers season that year. Some of them have specific designer information; however, many simply state the name of the show and director. It is not too great a stretch to postulate that Selden could have (and most likely did) designed these productions and subsequently built and implemented them, thus fulfilling the role of designer and technical director simultaneously.
Before moving further into the history of the position of technical director within the twentieth century, attention must be paid to the amateur theatre outside the confines of the academic community. The distinction between academic and amateur theatre is not clearly defined, yet it is significant. Historically, both types of institution were “amateur” in that neither was a producing organization on Broadway. However, they developed separately and each had unique features that set it apart from the other. There are early texts that address both types of theatre as “amateur,” and there are texts devoted entirely to one or the other. The objective here is not to clearly delineate the differences between the two, but to examine the origins of the job of technical director in both types of producing organizations. Surprisingly, some of the most specific insights into job function and very specific organizational hierarchy can be found in the least professional kind of organization, the Little Theatre.

Apart from the references at The Metropolitan Opera near the turn of the century, the earliest specific references to a technical director may be found in texts written expressly for amateur production companies. In 1926 (predating Barber and Selden’s academic manuals by two years) Frank Shay wrote *The Practical Theatre*, which not only has specific references to the position throughout the text, but has a specific section written for the technical director as the second highest ranking position in the organization. One final point of interest before investigating the specifics, Shay concludes his section to the technical director by saying “…the assistants and staff of the technical director should become, during
performances, the staff of the stage manager. This is so often the case that it is hardly worth mentioning” (Shay, 55). The implications of this statement are significant. We learn that this situation is quite common, which also tells us that the position of technical director is quite common as of 1926, at least in some situations. (See Figure E - Organizational Chart for Little Theatre on the following page.) This quotation raises the question (yet again) as to how much was assumed and not recorded regarding things such as job titles, specific roles in the organization, and who reported to whom. The quotation at least presents the possibility that the position may predate any written reference (as relates to amateur theatre) by several years.

Shay begins his brief remarks to the technical director by surmising that “Anyone not an artist should tread lightly as he enters the studio of the technical director, or artist. One should never call him a designer nor a scene painter, for Messrs. Craig, Macgowan, and Jones have raised him to a dignity heretofore unknown to any other member of the profession save a star of the first magnitude” (Shay, 53). The implications of this quote are quite staggering. Edward Gordon Craig was one of the two most famous European designers (the other being Adolphe Appia) who helped inspire the New Stagecraft movement here in the states. Robert Edmond Jones was one of the preeminent designers at the forefront of this movement. Kenneth Macgowan was one of the most prolific theatre authors in the 1920s and 1930s, widely and critically acclaimed both then and now. Shay says that these theatre giants have elevated the role of the technical director to that of stardom. The seeming contradiction is where he says not to call the technical director a
Figure E – Organizational Chart for a Little Theatre – from *The Practical Theatre* (1926)
scenic designer – which Jones and Craig definitively were. Yet he makes the terms “technical director” and “artist” virtually synonymous. Shay also describes budgeting as one aspect of the technical director’s job. “In addition to his sketches, he will prepare an estimate or outline of the expenses” (Shay, 53-54). What’s interesting about this quotation is the contrast of two very different elements of this position: one artistic, one pragmatic. Here, as early as 1926 we begin to see clearly the dichotomy, and simultaneously, the fluidity between these two roles in the theatre which later developed into very different positions.

Earlier in Shay’s book, he demonstrates that the position of technical director was not limited to one specific type of amateur producing organization. His first chapter is solely dedicated to the organizational structure of different types of theatre groups. In the section on Little Theatres he discusses how an individual can be more effective than a committee and states that the theatre might have “a technical director in place of many committees on scenery, costumes, workshops and production” (Shay, 17). In a subsequent section on community theatre we learn that “the executive committee will be composed of the president, secretary, treasurer, attorney, general director, technical director, playreader (sic) and business manager” (Shay, 23). This quotation demonstrates that the position was not only critical to the production aspect of the organization, but to the very foundations of what made the company a functional entity. Later, in a section on school and college groups (about academic theatre functioning as part of curriculum, and as extra-curricular theatre groups) we learn that often “[both types of student groups are]… directly in the charge of a member of the faculty who constitutes a director, technical director, and playreader (sic).
He determines the plays to be presented, the manner in which they are to be mounted, and then casts the parts and directs the play” (Shay, 36). This arrangement, now endearingly referred to in the industry as the “one-man department” still exists today. (I recently viewed a job posting for a technical direction position at a community college. The job, once filled, would constitute the second full-time position in the department.) The obvious inference from this statement is that there are a multitude of responsibilities that would fall under the purview of such a position, and that many of them, as acknowledged by the author, would rightfully be specifically relegated to the technical director’s control in more amicable circumstances.

In 1926 Jessica Royer and Allen Crafton published a book titled *The Process of Play Production: A Book for the Non-Professional Theatre Worker*. Here again, the boundaries within the non-professional world become somewhat vague as Royer worked for the University of Kansas. However, the book’s dedication reads, “Inscribed to the memories of The Prairie Playhouse – a pioneer in the little theatre movement and one of the first non-professional theatres to appear in a small American city” (Crafton, v). Crafton goes even further than Shay by designating the position of “art director” to the same general functions as we have previously seen under the heading of technical director. “The art director is usually the scenic artist, and the scenic artist frequently has to construct the scenery” (Crafton, 126). Apparently Crafton and Royer did not share Shay’s concerns about referring to the scenic artist and art director (or technical director) as the same position. (For a graphic representation see Figure F on the following page.) Further confirmation is given
Figure F – Two Different Organizational Charts – from The Process of Play Production (1926)
when Crafton goes on to say that “the art director is not only supervisor and director, he is usually the actual carpenter, painter, and mechanic as well” (100).

Aside from establishing the overlap in the job responsibilities, and aside from clarifying the many different titles that were given to essentially the same job, a significant aspect of the question posed by this paper is who is performing this job. We are certainly interested in the job description and the exact nature of the hierarchy in the various types of producing organizations. However, earlier in this paper are the compiled results from more than 20 interviews of current and former technical directors. One goal of those interviews is to ascertain what type of individual is drawn to this line of work. Crafton provides insight on this very question almost ninety years ago:

Modern stagecraft includes the designing, construction, and painting of scenery; … the assembling or making of properties; and the devising and construction of mechanical stage devices. How fortunate the non-professional theatres would be if they had at their disposal an expert electrician, a stage architect, a talented painter, a clever costume designer, and an ingenious mechanic! Happily all of these experts are not essential to a creditable production. … Usually all of the staging is under the supervision of one trained man whom we have designated the art director. … Shall the art director be a skilled artist? Not necessarily, if we mean by that a clever draftsman and a good easel artist. … It is expected that he will be able to use the hammer and brush, mix the dye pots, and operate the switchboard…. Shall the art director be a trained man? To an extent, yes. He should know something of the theory and history of design, color, and light, something about textures and pigments…and such knowledge is not instinctive but acquired.

Here we begin to see an individual who could be drawn toward artistic endeavors out of pragmatic skill, or an inherent artistic ability, or a combination of both. Part of the question raised by this paper is whether the technical director can or should consider himself an artist. Now we can clearly see that, at least initially, there was no distinction between the two whether the term technical director was employed or not.
The term technical director is not mentioned in our next source either. However, the terminology has been inextricably interchanged with the term “production manager.” (See Figure G – Organizational Chart for Children’s Theatre on the following page.) I discovered this book through an index in another technical manual, which we will come back to shortly.

I was perplexed because the term technical director was used specifically in the index, but was not to be found in Winifred Ward’s *Creative Dramatics* published in 1930. The author taught at Northwestern and also at the high school and junior high school level. Most of the text deals with producing theatre as part of a children’s theatre organization. In a chapter on organizational structure Ward emphasizes the position: “Second in importance only to the director is the production manager. No children’s theatre should be organized without a capable person in this position, for upon him rests the responsibility for the staging of the play” (Ward, 255). Further clarification on the responsibilities of this position may be found when Ward states:

Unless a children’s theatre has on its staff a designer, the production manager designs as well as makes the sets for the plays. If he is both artist and practical construction man, he studies the play, discusses the settings with the director, receives from her the floor plans…designs the scenes, and then proceeds to supervise their construction. He is responsible for the entire production, and should relieve the director of all care concerning the setting, lighting, make-up, properties, and stage staff.

Ward very clearly states that the artistic and pragmatic functions were typically combined into one role. The timing, location, and type of producing organization all combine to further demonstrate that the job was fully realized by many types of theatres, in many areas of the country by the late 1920s and early 1930s.
Figure G – Organizational Chart – Children’s Theatre of Evanston – from *Creative Dramatics* (1930)
The final source before moving ahead in the twentieth century may contain more specific details about the job functions of the technical director than any other we have examined. The book’s title was misleading to the point that I almost overlooked it entirely, not accounting for the fluctuation in today’s terminology and that of 1937. Here we have yet another example, in the person of William Perdue Halstead, of someone fulfilling the job function of a technical director while writing specifically about the job by name, and yet never naming himself as such. Halstead, from 1935 to 1975, taught at the University of Michigan. In his New York Times Obituary he was listed as “professor emeritus of speech communication and theatre” (Jan 1, 1983). Halstead’s book *Stage Management for the Amateur Theatre* was published in 1937. The title provides further evidence as to the ambiguity of amateur and academic theatre. The book’s title was a source of confusion. My assumption was the book was about stage management as we think of it today. Certainly, this text focuses on backstage activities and production in general, but the title could be reworded to “management of the stage in the amateur theatre” and would be more consistent to modern terminology. The most significant contribution of this text is that the technical director manages the stage in almost every aspect of production. Not to be confused with the stage manager as a specific position, which existed and is addressed in the text, but the general overtones and specific goals of this text are aimed at the technical director in an academic setting. Halstead sums up rather concisely in his foreword, “A method is presented by which this phase of a production may be carried out with less lost motion, less confusion, less excitement, and fewer mishaps, oversights, and blemishes to the performance than are customary” (Halstead, vii).
Even a cursory glance at Halstead’s table of contents provides ample opportunity to see very specific details of the modern position clearly extrapolated. The table of contents contains the following headings: “To the Technical Director,” “To the Chief Technical Assistant,” “To the Assistant Technical Director” (the first reference I have found to the position, which is quite common today), “Superintendent of moving and setup,” “maker of the moving plot,” “Assistant Superintendent in charge of tools and supplies,” “superintendent of flying,” “director of scene shifting or stage carpenter,” and finally, “the effect master” (Halstead, xi-xiii). In the index (which is very thorough and contains indexed terms from other books by page number) Halstead references Crafton’s 1926 publication under the term “technical director” even though the precise term is not used in the book, the page referenced is about the art director, thus giving further support to the ambiguity of the title. His index also references Ward’s 1930 publication, also using the term technical director, where Ward only ever references the production manager. Halstead’s book, as specific as it is, contains a great deal of detailed information attached to the job title we use currently, and provides excellent support for the hypothesis of the job being one and the same within several types of organizations, scattered across the country, all referring to the position using different words.

One interesting point is that amidst all of Halstead’s specificity regarding the position and its title, he never confers the title upon himself. Whether this had anything to do with his actual title at Michigan I could not ascertain. After close scrutiny I discovered the following statement: “Some technical directors say that fifteen people is the greatest number that can be successfully kept at work during a set-up. … The author has used as
many as sixty workers at one time…” (Halstead, 15). He just referred to himself as the technical director without using the title. Halstead again describes himself saying “…the author taught inexperienced members of a stagecraft class to run a performance of Macbeth containing twenty-eight changes of scenery each involving almost a complete rearrangement of flats and wagons” (Halstead, 5). This quotation is interesting for a couple of reasons. This is the first mention of a stagecraft class specifically as part of an academic training program. The class is still taught today and uses the same title, although the content may vary somewhat. Regarding this allusion, my own experience in undergraduate stagecraft coursework did not include teaching about crew work or much (if any) teaching on stage management as we now regard it. But again, if Halstead was teaching the stagecraft class at the collegiate level, and the class is (and potentially was then as well) typically taught by the technical director, this is further evidence that he performed the job with or without the title.

Halstead delves into many areas that are still points of contention within producing organizations today. For example, “An effective means of forwarding the preparation of a production is to have frequent conferences between yourself, the director, and the heads of departments” (Halstead, 20). This reference, almost verbatim, would describe the modern production meeting. The need for production meetings has only increased with the rise in complexity of productions. Production meetings are difficult to schedule, and often are not viewed as necessary by some members of a production staff. However, they are invaluable today as they were in 1937. Another very relevant aspect of the technical director’s job description (then as well as now) can be found in the following quotation on page 20:

The technical director or chief technical assistant should set definite dates for the completion of plans for the various tasks. The tasks of other people on the staff are
contingent upon them, and they are necessary for the completion of cue-sheets and scene shifting plots. The dates should be well in advance of the performance, and the dead-lines should be enforced rigidly.

Many technical directors describe (as shown in the text of my interviews) timelines and deadlines as the most daunting challenge they face in their job. During the first semester of my M.F.A., I was surprised to learn that deadlines were a source of contention within the department. Apparently this was not an isolated issue. According to my interviews with technical directors, often other members of the production team cannot understand or will not accept the importance of design deadlines that allow for scenery to be executed in a timely fashion. These same deadlines allow the producing organization to save time and money, while simultaneously maintaining a positive attitude from different contributing departments. The same is true of much larger producing organizations, and also would seem to be as true in 1937 as it was in 2009.

Finally, on a somewhat less pragmatic but no less important note, Halstead addresses the issue of praiseworthy performance by staff and stage crew. “… it is wise to do this [commend satisfactory performance by crew members and staff] in the presence of the actors in order to impress them with the magnitude of the preparation that has been made to display them and their work, and in order to have them understand that there are other parts of the whole enterprise which are nearly as important, through (sic) not so conspicuous, as their own roles” (Halstead, 19). I do not believe this sentiment is limited to actors. There are many people in the theatre that are not aware or do not understand the complexity or sheer magnitude of what is contributed from the production side, not only from the technical director but from the entire production staff. (This is not including the vast majority of
audience members, who remain uninformed as to what is required to create the productions they attend.) I would also contend that many stage personnel and production staff members do not want applause. However, positive reinforcement and praise, particularly in the presence of peers and coworkers is an extremely effective way to build morale and manage personnel in what is often a frantic and anxious environment. Again, this was as true in 1937 as it is today.

One final note regarding paperwork, as discussed in the introduction of this paper, no one in the theatre (with the notable exception of stage management) generates paperwork to the extent of the technical director. Paperwork is a critical aspect of the job and has not, thus far in much of the source material, been extrapolated much beyond the drawings needed to complete the scenic design. Halstead emphasizes the importance of paperwork in general: “The importance of written directions and reports in planning an executing a production cannot be over-stressed, because of the opportunity they afford the technical director and other members of the staff to check all work and to refer to the data instantly throughout the process of the enterprise” (Halstead, 15). So whether paperwork, production meetings, establishing and meeting production deadlines, or personnel management, the significance and relevance of Halstead’s book can hardly be overstated in terms of helping to define and articulate the early period of development in the position of the technical director.
CHAPTER VI
HISTORY – PART 4

The fourth and final chapter concerning the history of the position of the technical director picks up almost exactly where chapter 3 ended, at the end of the 1930s. Our last publication in the previous chapter was written in 1937. 1938 could be one of the most significant years of the 20th century for the field of technical direction. It was in this year that Harold Burris-Meyer and Edward C. Cole published the first edition of *Scenery for the Theatre*, which has been called the “Bible for technical theatre” and the “grandfather of them all.” (These generalizations came up not only in my interviews, but also prior to my considering this project.) The book was reprinted several times (the earliest copy I could obtain was from 1947) with no revisions; however, a revised edition was published in 1971 and this is still considered by many to be the book on technical theatre from the twentieth century. It says a great deal about the quality and thoroughness of the original edition that it was simply reprinted for over 30 years without revision. For this reason the book will be covered in some detail. It is also a great bridge from the first half to the second half of the 20th century. The manual provides an opportunity to see many of examples of exactly what changed, and what did not. There will be several other technical manuals in this chapter, some written between 1938 and 1971, and a couple written after. However, Burris-Meyer and Cole have provided the path for us to follow the technical director into the modern era.

The world changed dramatically between 1938 and 1971, as did American culture and the American theatre. Certain areas of theatre technology expanded by leaps and bounds such as lighting, metalworking, the use of alternative materials such as plastics and
fiberglass, and the incorporation of increasingly sophisticated machinery into technical theatre. In the preface to the original edition, the authors state that, “This book is devoted to a consideration of the process of production, technical design, planning, construction, use, maintenance, and ultimate disposition of the scenic investiture of the play” (Burris-Meyer, 1947, vi-viii). I will say that, in my opinion, the preface to the original edition comes off as a bit smug. The authors presented a somewhat less-than-satisfactory picture of “amateur” theatre. Which in 1938, as already demonstrated in this paper, contained a wide range of organizations and considerable variations in the level of professionalism. However, it could be argued that one reason for the longevity of the book was the authors’ collective goal of presenting nothing less than the absolute highest standards available. This goal is evident in the preface to the revised edition in the following statement, “If this book is to be realistic and authoritative, it must then relate scenery to the conceptual thinking, designing, and planning which affect it and to the organizations by which the production is planned, produced, and operated” (Burris-Meyer, 1971, ix). In short, these two men set out to write the book on technical theatre, succeeded, and 32 years later revised and ultimately maintained their place atop the pantheon of technical theatre giants.

Prior to delving into the book, a brief word about the authors is necessary. In his New York Times obituary (3 April, 1984) we learn that Edward Cole studied for two years at Yale under George Pierce Baker. He joined the faculty there in 1928, coincidentally the same year that Barber published the Scene Technician’s Handbook, which is cited in the 1938 preface to Scenery for the Theatre not only as source material but by saying that Barber’s book “contains the first analytical approach to scenic problems” (Burris-Meyer,
1947, v). We also learn that Cole taught for 41 years at Yale, a rather illustrious tenure considering Yale’s place as one of the most prestigious theatre programs in the country. He was “acting dean of the drama school in 1965 and 1966.” He was also the president and/or director for several academic organizations such as the American Educational Theatre Association and served as a technical consultant to many regional theatre companies such as the Shakespeare Festival Theatre in Stratford, Connecticut.

Harold Burris-Meyer, according to his obituary in the Boca Raton News (28 September, 1984), was a “professor emeritus of theatre at Florida Atlantic University and a world-renowned consultant for theatre design.” He also “authored several books, including a definitive text on theatre acoustics.” Both men were life-long academics and both had substantial careers in the world of technical theatre. As to their specific positions when the book was published, that raises the first question as to the differences between the original and the revised edition.

*Scenery for the Theatre* is the second example in this paper of a publication whose revised edition provides less specific information about the authors than the original, the first being Selden and Sellman’s *Stage Scenery and Lighting*. Like their predecessors, Burris-Meyer and Cole listed their titles in conjunction with the original publication. At the time, Cole was listed as “Assistant Professor, Yale University School of Fine Arts, Department of Drama; Technical Director of the Yale University Theatre.” Burris-Meyer’s credentials read thus: “Assistant Professor, Stevens Institute of Technology; Director of the Stevens Theatre.” The revised edition lists no such positions – for the simple reason that neither man was employed in the exactly the same position as at the time of the original
publication. Upon receiving the 1971 edition my initial response was to question the conspicuous absence of a title for either author. (I had not at that point, tracked down an older version and was, as of yet, unaware of how striking the absence would seem in light of my research.) Beyond the fact that both authors’ positions had changed, I believe a simple answer to this question can be found in understanding how prominent this work had become in its field by the time the revised edition was published. These men needed no qualifications. They had already published the premier work on technical theatre of their generation. The work withstood the test of time and simply needed some additions to include rapidly changing technology. From the perspective of a novice, or someone unfamiliar with either technical theatre or theatre history, there could be grounds for arguing that listing even their previous positions would help to establish some credibility for the reader who simply picked the book up off a shelf. However, after learning more about their careers, their place within the industry, and the amount of respect they had and continue to garner among technical theatre practitioners (young and old), I can understand the absence of qualifications. They are unnecessary; the book speaks for itself.

In the preface to the revised edition we are presented with a summary statement with regards to what has been updated:

Though much of the material this book contains is as applicable today as it was thirty-two years ago, when it was first published, a number of considerations make a new, revised, and expanded edition mandatory. … The craft of the scene technician and technical director in the American theatre now demands a degree of engineering competence hardly necessary a generation ago. There is now a considerable literature dealing with the technical aspects of theatrical production (ix-x).

Through this statement a glimpse may be seen regarding the evolution of the position. However, the rest of the preface defines specific areas of technical innovation which have
been added to the book. These additions, like much of the rest of the text, are dealt with in the manner of an instruction manual. Despite the large quantity of information on technical theatre processes, many of which directly involve the technical director, the book was not written as a historical treatise on the position and many inferences must still be made.

One notable difference in the two editions may be found in the index. The term “technical director” is not found in the original. As earlier hypothesized in the paper, this omission may have been due more to a lack of compartmentalization and explicit referrals to the position rather than a lack of emphasis on the position itself. Again, I find the absence of an indexed term to be somewhat conspicuous. It is not because the term is not included in the book. (We know that Cole would have been well-acquainted with the term, at the very least due to his position at Yale coinciding with that of Philip Barber. Then again, Barber utilized the term “scene technician” so perhaps the omission is to be expected. As early as the second chapter (see Figure H on the following page) which focuses on the organizational structure of positions within producing organizations, the book demonstrates not only the integral nature of the position but the variations in job description based upon the type of organization. The revised edition, however, not only contains the term in the index but the second chapter has been altered to break down the positions, including technical director as a specific subsection within the chapter. The indexed term in the revised edition also includes the following subheadings “planning the production,” “responsibilities of,” “in technical rehearsals,” “work chart,” and “working drawings” (Burris-Meyer, 1971, 316).

I was quite surprised by one statement I discovered in the original, which was subsequently reprinted in the revision with no alteration. “Inasmuch as many functions are
Figure H - A detailed chart showing various positions in different types of producing organizations, including technical director (Burris-Meyer, 1938, pp. 28-29).
herein assigned to the technical director which are commonly in America performed by the designer, it is well for the scene designer to assume that, if he is working in the American professional theatre, he must be to a considerable extent, at least, his own technical director” (Burris-Meyer, 1938, 66; Burris-Meyer, 1971, 53). This statement provides further evidence of the differences between the European system and the American. The statement would be less surprising in 1938 from all the evidence demonstrated herein regarding both job title and job function. However, by 1971 it is quite significant that this book delineates these two positions in this way. Another piece of evidence that was directly carried over to the revision was a chart showing a detailed layout for planning a production (Burris-Meyer, 1938, 61 – Fig. III – 10. I intended to include a reproduction of the chart, however it was handwritten and a legible facsimile could not be achieved). When I discovered this chart in the original I was pleasantly surprised, for this type of chart contains material similar to that covered in the first semester of graduate studies in technical direction at the University of Missouri-Kansas City. However, discovering that this chart had been copied verbatim into the revision was surprising, at least for the sake of referring to the scene technician as opposed to technical director.

Drawings and drafting have been mentioned throughout this paper, and Scenery for the Theatre provides an excellent comparison of designer drawings and working drawings, replete with images, to complete our discussion on this crucial piece of technical theatre. The distinction between the two different contributions to the production process was clearly defined in the 1938 edition, both in-text and through the corresponding images. (See Figures I and J on the two following pages for a sequential comparison of a designer
drawing, and the subsequent working drawings created by the technical director.) The designer’s drawings are included as part of his responsibilities to the production as follows (Burris-Meyer, 1938, 46-47):

To plan each setting with respect to all essential requirements…and limitations (stage space and equipment, budget, etc.) To make complete and clear representations of each setting, in sketch rendered in color, ground plan, and model, from which all other workers on the production may ascertain, when necessary, the nature of the scenery. To make detailed drawings and specifications for the builders, stage carpenters, and riggers who are to install the scenery on the stage. To evolve a workable scheme of handling the scenery in shifts of allowable time duration. To supervise the entire process of execution of all parts of the scenic scheme.

There are certainly elements within the previous quotation that (at least in modern terms) have considerable overlap into the function of the technical director. But from the vantage point of 1938 (and the vantage point of 1971, since this was also reprinted without alteration) the above responsibilities are differentiated from the technical director as follows:

With the technical analysis complete, it is possible to plan the scenery down to its smallest detail. Working drawings show the size and shape of the scenery, the structural parts of which it is formed, the joining of those parts, and the materials of which all parts are composed. The technical director, having divided the scenery into units for stages handling and pieces for transportation, makes working drawings of each unit. … The working drawings for a set of scenery consist of: Ground plan to the scale of \( \frac{1}{2}'' \) equals 1’ 0” showing all scenery including backings, ground rows, drops, and cycloramas, in relation to the proscenium; all standing stage equipment to which the scenery is attached or related, all curtains, draperies, borders and other objects hung over the stage, and the battens or line sets from which all scenery is hung. The actual thickness of all scenery, the division into units and pieces, the methods of fastening together and bracing, the principal dimensions as follows… (73-78).

This quotation, in combination with the quotation on designer drawings, demonstrates in great detail the exact differences in these two visual representations of a set. It makes it easier to understand why we have compartmentalized these jobs, at least as far as graduate training, the way we have. The evidence presented also supports the idea that one person
Figure I – Working Drawings – Burris-Meyer (1971, 62-63).
Figure J – Designer Drawing – Burris-Meyer (1971, 61-62).
would have an extremely difficult time generating these two rather disparate types of paperwork, one quite artistic, and one quite pragmatic.

To conclude the discussion on this critical piece of literature from the technical theatre canon we again draw inferences from the material available. The technical director can be found in the original version, although not as often as in the revision. However, the book as a whole, regardless of frequency of specific referrals to the position, takes on the field of technical theatre in a way in which no previous work had done. One of the contributing authors was a technical director, so there was certainly no intentional omission as to the particulars of the position. If the book is the highest authority on technical theatre from the 20th century, it may also serve as the highest authority on the integral nature of the technical director to the process of producing theatre. The technical director was and remains critical to the processes covered by this book, as much in 1938 as in 1971 and perhaps even more today when the technical elements have become even more specialized, the integration of automation more common, and the structural analysis required to achieve sets of ingenious design and epic proportions more critical than ever.

Before moving on in the world of academia, it is appropriate to have a brief word about the earliest records of a technical director in regional theatre. Believe it or not, tracking down the position of technical director is even harder outside academia the further back in time we reach. (At least academics publish books – albeit with less specific mentions of the position than I had originally hoped.) Most regional theatres I contacted, including the Kansas City Repertory Theatre (which is physically here, which means that I was able to go and track down the correct personnel) have great difficulty in accurately
defining the advent of this position within their organization. One exception, which proved particularly useful due to its age and specificity, was the Oregon Shakespeare Festival in Ashland, Oregon. When I called and asked about specific historical data I learned that the organization had several full-time archivists and they have a digital archive of every playbill their company had ever produced. That statement is more impressive considering that they were founded in 1935. Within seconds my question was answered when the archivist informed me that during the 1939-40 season their playbills indicated the recurring position of technical director being filled by Bob Steadman. (Coincidentally, he was one of the founders in 1935.) They also informed me that based on the information in the playbills we could assume with relative certainty the job functions were similar to those of today. Here we have yet another example, fairly early in terms of the rest of the historical references examined, coming from a regional theatre in a part of the country from which we have seen no other evidence, all of which further substantiates the assumption that the job was present in spite of the predominant lack of written evidence.

One of the most unusual technical manuals of all examined in this paper is Herbert Hake’s Here’s How! written in 1942. Hake distinguishes what sets his book apart in his foreword:

To the best of my knowledge, no one has ever acted upon the idea of drawing a book on stagecraft. Books have been written on the subject of scene construction, but their main appeal has rested upon a definitive text. The illustrations have occupied a secondary place in the authors’ total design. … Thus, the text of Here’s How! occupies the place usually accorded to the illustrations, and the illustrations represent the primary function of the text. … No mere straining for novelty has motivated this paradox. It is based upon the author’s belief – a belief supported by practical teaching experience – that an idea communicated by a picture is more quickly and completely apprehended than the idea which is communicated by the printed or spoken word (1).
Hake’s contention that a picture is essentially worth more than words when trying to communicate technical theatre principles to students is one that resonates among technical theatre practitioners. According to his obituary from the University of Northern Iowa, in 1938 Hake was hired by the University of Iowa as the scenic designer and technical director. Another item of note in Hake’s foreword is his specific mention of expense as a primary consideration. He, in contrast to Burris-Meyer and Cole, refers the reader to the many books written from the perspective of the professional, thereby inferring that those books would incur too much expense for the typical educational setting. Hake’s manual is included to further demonstrate the evidence of the technical director (and combination scenic designer) in the academic theatre in the early 1940s.

One of the reasons Hake’s book is included is the general lack of source material from the 1940s. This actually extends into the 1950s and 1960s as well. This absence serves as further reasoning to utilize as fully as possible the great work of Burris-Meyer and Cole as our overall guide to evolution that took place during those years. However, we have now reached events recent enough to incorporate a few recollections based on my interviews which will further shed light on the state of the position, particularly in academia during these years. Also, my intention was never to fully extrapolate every technical director, nor every organization that utilized the position throughout the entire course of the 20th century. The earliest origins have been fully explored, and now that we have reached years which can still be recalled by some individuals, we shall attempt, in broad strokes to connect the origins to the modern era of technical direction through several specific examples.
Henry Tharpe, one of my interviewees whose career in the theatre reaches the furthest back recalls the following, “In 1950, when I began my undergraduate work at Emporia State, that was my first recollection of the position of the technical director. Once I was aware that there was such a thing, it was my assumption that everyone [at the undergraduate level] had one.” Henry went on to qualify his statement by giving me more specific details about the size and type of college he attended, adding that if a school of that size had a technical director, then certainly the bigger state schools all had one. Doug Taylor substantiated Tharpe’s generalization when he informed me that his first experience with a technical director was in 1959 at Dartmouth University. This was also during his undergraduate work. I also posed the question (although not the full interview) to Ron Schaeffer, the theatre department’s production manager at UMKC and he in turn informed me that when he was in college “in the 50s” that every show had a technical director and it was a standard practice. Three practitioners of technical theatre, all within the realm of academia, recalling their own undergraduate work during the same period, in different parts of the country, demonstrate a trend at the very least. The technical director was a common position in undergraduate theatre programs at that time, however, perhaps not as formally, nor solely functioning in that regard the way the system works today.

Another example of source material offering insight into academic theatre during the 1950s can be found in a dissertation written by David Batcheller Jr. published in 1961 at Ohio State University. The title of the dissertation is The Status of the Technical Director in American Educational Theatre. As you might imagine, I was quite excited at the discovery of this document, however, it proved to be less helpful than I imagined. Due to the date of
publication we can infer some information from the 1950s. Much of Batcheller’s research focused on numeric data, specifically things like length of tenure, precise position in the educational system as relates to being a tenured professor, and trends within the position, such as how many individuals also taught in an English department. These numerical data are the types of things I am intentionally staying away from in this thesis. However, Batcheller does provide some illumination in his introduction.

He begins by discussing the origins of academic programs in theatre, and then narrowing the discussion to programs offering technical theatre coursework. There are some interesting points, but mostly his research is unverifiable due to a large percentage of it being gleaned from letters received as a result of personal questionnaires. But on in Chapter 1 Batcheller says the following:

Generally, the large institution offering a graduate program in theatre provides two separate positions: scenic designer and technical director. The major function in scenic design is the creation of settings, lighting and sometimes costumes. The major function of technical direction is the execution of the scene designer’s work. A third situation exists wherein one person is employed as the sole director of the technical aspects of production. In such a situation, the duties of the technical director are expanded to include those of design. Furthermore, it is a mistake to designate the man “technical director,” because this places emphasis upon the execution without any suggestion of design. “Designer-technician” is the term which should be used as the title for the single technician; the term implies both design and execution (5).

Batcheller goes on to describe how he ultimately settled on the term “technical director” for all of his surveys because the appellation of “designer-technician” was uncommon and he believed it would cause confusion and skew his results. These remarks demonstrate several things. First, that all of the previous demonstration of evidence supporting the overlap of the two positions is supported in other academic research (which coincidentally was done more
than fifty years ago and was much closer in time to the decades in question – namely the 1920s and 1930s). Second, that as of the 1950s there were both graduate and undergraduate programs in theatre readily available. Third, the graduate programs were already segmenting the positions separately into designer and technical director. Finally, that it was still very common, common enough for Batcheller to attempt to coin the term “designer-technician” (which he later found untenable), for the two jobs to be combined in one faculty member – presumably in undergraduate environments.

Batcheller goes on to group both technical directors and designer-technicians under the term “technician.” “The technician is a special type of person. He is an artist, craftsman and organizer. He possesses technical knowledge of many sorts. His specialization has made the technician the authority in technical theatre and as important in his way as the director” (Batcheller, 7). I felt somewhat vindicated after all of the controversy from my interviews regarding the technical director as artist, to observe in someone’s writing the terms “artist” and “craftsman” in the same sentence and not holding the terms as mutually exclusive. In concluding his introduction Batcheller quotes none other than Edward C. Cole discussing his desire that the technical director be recognized as “a valid, arduous and meritorious discrete subdivision of theatre arts, based in science and the liberal and fine arts and deserving of independent status as a part of the organization for theatrical production” (Batcheller, 10). This remark demonstrates that even the most prestigious people in the industry (such as Cole), as long as 52 years ago, were advocating the legitimacy of this position, both in and of itself, and within the confines of academia.
A final glimpse into the technical theatre of the 1950s may be found in Vern Adix’s technical theatre manual *Theatre Scenecraft*, published in 1956. A brief word about the author will aid in understanding the book. In an biographical note on the author at the back of the book Adix either describes himself, or is described in the first person as follows: “…He has designed and/or staged in the neighborhood of 300 productions including plays, operas, musicals, and ballets; has adapted 15 plays for children’s theatre; … His general philosophy of staging and scenic design tends to be in favor of simplification: do not use a paragraph to describe a scenic locale if it can be done with a sentence, a phrase, or a word” (311). Here is evidence of yet another Renaissance man of the theatre. Adix spent his entire career in and around the University of Utah in some way affiliated with the theatre. His description of an individual attempting to produce a play from his introduction states that:

The producer of a play should know how to design, build, paint, erect and light the scenery. … He should know how to achieve satisfactory scenic effects with a minimum expenditure of materials and effort. To do this he must know the raw materials of the scene crafts. From these raw materials he must be able to form the scenic units which, when manipulated, produce the structure that is assembled and lighted to provide the environment for the actor and the stage picture for the audience.

Here is yet another example, the same in the mid 1950s as it was in the 1920s and 1930s, of someone well-versed in the craft of theatre stating that in order to produce theatre, one must be competent with most, if not all, of the various components that go into creating a production. The rest of Adix manual is strictly a how-to and neither sheds light on the position of the technical director specifically or gives us other historical insight into the development of the job. However, through the use of his biographical information and his introductory remarks, further support is garnered for the arsenal we are compiling (which
transcends time, geographic location, and the various types of producing organizations) regarding the requisite skills deemed necessary to undertake this job…whatever its title.

This fourth and final chapter comprising the historical section of this paper concludes with a look at what will hereafter be defined as the “modern” era of technical direction. The 1970s, unlike the 1950s and 1960s, had a proliferation of source material, not the least of which is the revised edition of *Scenery for the Theatre* in 1972. Another technical theatre manual, *Essentials of Stage Scenery* by Samuel Selden and Tom Rezzuto, was published in 1972. This work was a revision of Selden’s earlier publication with Hunton Sellman in 1930. As is the case with Burris-Meyer and Cole’s revision, Selden’s revision contains some interesting material in relation to the development of the position of technical director.

In a chapter focusing on the planning of scenery, while covering the scene designer’s role in this process, Selden gives the following information:

After a set design has been agreed upon by the designer and the director, the designer produces working drawings from which the various pieces of scenery can be built. … The methods for converting these representations into working drawings for the carpenters, who convert the drawings into wood and canvas, are outlined in the following pages (66).

Considering everything examined in this paper regarding the history and development of the position of technical director this statement is quite remarkable. There must be provision for the possibility that the position being discussed is the aforementioned “designer-technician.” However, the fact that a book titled *Essentials of Stage Scenery* can cover the process of creating stage scenery without mentioning a technical director is remarkable. The implication is that the technical director is not essential to the process, which is part of the
question undertaken by this paper. As previously mentioned, there were several instances in my research where the position of technical director was relatively common as early as the 1950s. Batcheller confirms my experience in his dissertation (written in 1961) by stating that “Of the 399 business reply cards sent out, 308 were returned. Directors of theatre in 194 institutions indicated that a member of their staff was employed as technical director” (Batcheller, 13). Therefore the omission of the title in Selden’s 1972 revision cannot be simply oversight. Either Selden is innocuously referring to a dual position, or we are presented with the possibility that in 1972 this basic function of the modern technical director was frequently relegated to other positions within the producing organization.

Yet another technical publication, A.S. Gillette’s *Stage Scenery: Its Construction and Rigging*, coincidentally published in the same year and within the confines of the academic community, further complicates the issue. The first chapter in Gillette’s book is called The Organization of the Production Staff. In this chapter Gillette provides the following information on page 3:

The primary purpose of this text is to discuss the duties of the technician. … It seems advisable, however, to begin with the topic of organization, since it is essential for the reader to understand just where the technician fits within the general framework of a production staff. …the office of the scene technician, as it exists in educational or community theatre, has no counterpart in the production staff of the professional theatre. His duties have been divided between the personnel of the studios specializing in the construction and painting of scenery and the stage carpenter, electrician, and stage manager of the regular production crew. In some educational theatre organizations the duties of the scene technician are further complicated by the fact that one man will often serve as both scene designer and technician. This fact alone makes it essential that the delegation of duties be understood by all of those working within the framework of a nonprofessional theatre production staff.

Within this quotation we are presented with two terms: technician and scene technician. We already know that the title of scene technician is one of the oldest and has apparently not
fallen completely into obscurity between 1928 when Barber published the first technical manual and 1972. Gillette’s use of the term technician seems somewhat broad, presumably intentionally. His book covers a significant amount of territory involving more than a few personnel engaged in producing a show. The term technician is inclusive and helps to cover all the possibilities.

However, we have established that the position and the title of technical director were commonplace by this point. I find it significant that Gillette makes a point to qualify the need to address the specifics of organization of production staff but he subsequently omits the technical director. On the next page we are presented with further clarification that only serves to further obfuscate our findings. “The element of scenery actually embraces two fields of activity – creative and technical. The creative field is represented by the work of the designer….” Amidst all the generalizations the position of scenic designer, both in title and in function, seems perfectly clear. However, shortly thereafter we learn that “the technical field is represented by the individuals who are responsible for the mechanical operations of drafting, constructing, painting, rigging, and shifting of scenery” (Gillette, 4). These two quotations comprise, almost in its entirety, the section titled Scenery. The evidence shows a designer and his or her position, and the technical aspects, not affiliated with one person, nor under the jurisdiction of a specific office within the organization.

Several pages later, on page 9, there is a subsection titled Technician, in which is written the following:

The technician is responsible for translating the designer’s plans into working drawings and for the division of settings into units of scenery capable of easy handling and shifting. He perfects the designer’s general scheme for shifting scenery and solves in detail the problems concerned with construction and rigging.
that all shop equipment is kept in good workable condition and keeps an adequate supply of building material and hardware in stock at all times. With the aid of the building carpenter and the stage carpenter the technician supervises the building, assembly, and rigging of all scenery. The sound effects and properties that are to be built are under his direction.

Here is one of the most complete job descriptions for the technical director established anywhere in the source material utilized in this paper. There is one small inconvenience: the term “technician” as opposed to technical director. Based on the job description this is certainly the same position. The question remains why the specific title was not used. I can only speculate that by using the term technician, Gillette is leaving the description open-ended and more inclusive for positions that included more or fewer job responsibilities than merely one or the other would have provided. To put it another way, the author tried to ensure that readers could assimilate the specifics of the job regardless of whether they were familiar with the specific title of technical director, or perhaps more familiar with a general title that encompassed other areas of responsibilities as well.

Not to be deterred by the latent ambiguity presented by these two sources, I proceed with my assertion that the decade of the 1970s, certainly by the latter part of the decade, was the advent of the “modern” era of technical direction. There are several reasons for this assertion. First, there are still technical directors working in academia who were also doing so in the 1970s. Several of them completed my interviews and there is first-hand evidence of the similarities of the pedagogy between then and now. Second, there is still a generation of technical directors and production managers (many if not most of whom were former technical directors) actively working and teaching in the field of technical theatre who were engaged in training either in the late 1970s or early 1980s. Their legacy, both pedagogically
and practically is still being passed on to the next generation(s) of technical directors. Third, the advent of the structural math being taught as a formalized component of graduate-level training was during the latter part of this period. That math now forms a cornerstone of education received by technical directors. It is crucial with the rapidly improving technology and the increasing demands of the scenic world that this math be taught and assimilated into the skill set of anyone endeavoring to follow this career path. Finally, the degree of Master of Fine Arts specializing in technical direction gradually became considered as a “terminal” degree. According to a couple of my interview respondents this was, in large part, due to the efforts of Doug Taylor during the course of his career. During the interview Taylor remarked, “I felt that being a TD was a viable and honorable career. I did not use it as a stepping-stone to other things” (Taylor). The status is significant as relates to standing and procession through the ranks of the educational system. The controversy of M.F.A. versus Ph.D. is one left to another paper. However, the improving status in the perception of the technical director, which is still an ongoing process, began to be evident in the 1970s.

To conclude the examination of source material and bring us as close to the position of technical director in modernity as possible, I include material from Drew Campbell’s *Technical Theatre for Nontechnical People*, published in 1999:

‘Technical director’ is a very loose job description, one of the loosest in the business, but usually he is in charge of deciding how the set will be built. Sometimes, he also oversees the properties and lighting crews, particularly in smaller theatres. His oversight, however, is always limited to practical matters, such as money, equipment, and staff. He is not a designer, and should never be put into the position of making design decisions. The TD is the voice of reason in the technical process, which, unfortunately, often makes him the bearer of bad news. The TD is the one who must tell you that the effect you want is too expensive, too time-consuming, or
or simply not possible. His opinion may bring you down occasionally, but it’s better to know that your idea won’t work ahead of time, instead of on opening night.

This description sounds considerably closer to my experience in graduate school training to be a technical director. It is evident that the compartmentalization has increased dramatically from the designer-technician’s role that was frequent even up until the 1970s. This quotation brings the historical section of this paper full-circle, from the extremely nebulous origins of the artist creating and implementing his or her own designs, which we saw from the turn of the century through the 1930s (continuing as late as the 1970s), to the opposite end of the spectrum just witnessed where the technical director should never make artistic decisions. The question of artistry and how that is interpreted as it relates to the role of the technical director in theatrical production remains a matter of opinion. The question of where this position came from and, at least in part, how it evolved during the course of the 20th century has been explored. Having seen the technical director of yesterday (and the many titles to which he answered) we are left with the technical director of today who, at the very least, most likely has a sign on his door that reads: Technical Director.
CONCLUSION

This paper begins by examining the specific job functions of the modern technical director. The evidence presented in Chapter 1, when combined with opinions expressed in the interviews and with support found in the source material, suggests that the technical director must be fluent and familiar with many different aspects of the production process in order to effectively fulfill his role. The question posed in Chapter 2 is “what does the technical director do”; the answer is, myriad things, many of which are unfamiliar even to colleagues in the industry. The technical director must efficiently manage the overall production schedule, which comprises many different departments. A working knowledge of these departments, or at least familiarity with them and the ability to communicate accurately to them, is critical to performing this aspect of the job.

As mentioned in the interview section, the role of the technical director is comparable to that of an engineer, only with less time, fewer personnel, less money, and more diversity of skills required. The technical director must be more than competent in the fields of drafting, time management, personnel and resource management, budgeting, project management, woodworking, metalworking, rigging, and automation, among others. This list excludes all areas of design that often fall under the technical director’s purview in smaller organizations, most frequently in academic environments. Those technical directors frequently find themselves designing lights, sets, props, sound, or even costumes, and may additionally work as their own scenic artist. In order to achieve the best results while maintaining the safety of all involved, the technical director must be fluent in basic engineering math known as structural design. He or she must be acquainted with the local
safety and fire codes, in conjunction with often being in charge of special effects. The technical director is often in charge of the scene shop and is therefore responsible for all materials purchasing and tool maintenance. Above and beyond these many responsibilities, the technical director must train and mentor students and employees to ensure continuity in the legacy that has gone before them. One very frequent factor shared by the interview respondents (and the author) is their being inspired by a technical director at one point during their career and subsequently choosing to pursue the craft as a career of their own. As Rick Stephens put it, “The students were the product, not the scenery – the shows were a means to an end.”

After establishing the job functions of the modern technical director, the paper attempts to ascertain who is currently in the position, how they got there, and why they chose this line of work. The picture presented by the interview material is of individuals who are passionate about their work. This must be true because if “the only thing you want to do is figure out a technical problem, there are other ways to do that and get paid a lot more money with a lot less headache” (Genochio). However, in addition to being passionate, most of the respondents got a sense of gratification from part or all of the technical director’s process or its immediate results – the physical world they helped create which set the stage for a production.

The interviews showed several individuals who had been in and around theatre most of their lives, eventually being drawn specifically into the technical direction field, either due to pragmatic reasons (discovering they were not the next Carey Grant or because they wanted a steady paycheck) or simply discovering they could make a career out of technical
theatre. There were also respondents originally on very different career trajectories such as seminary, math majors, and aspiring professional diorama builders (yes that is, or at one point was, a profession). Many of these folks, by any number of circuitous paths, arrived at the theatre for work study, or for credit hours, or even because the class simply fit their schedule as an elective; and they discovered technical theatre and their predisposition for it, of which they may not have been previously aware. Most of the respondents had some type of construction or technical background to their credit prior to engaging in technical theatre. Many, if not most, were unaware that a career such as that of the technical director was available to them. Hopefully that fact is changing and earlier exposure to different elements of theatre will allow young theatre practitioners to aspire to be technical directors.

The most important question raised, though perhaps not decisively answered (as is often the case in the theatre), was that of the technical director as an artist. There was compelling evidence offered on both sides. The historical evidence presented in later chapters was very definitive; during the early years of the evolution of the position, the emerging technical director was, more often than not, a designer and technician in one. Historically then, the position was artistic by default, as it emerged from other areas which are fundamentally more artistic by nature. The question of the modern technical director as artist is ongoing, and it is a conversation that should be undertaken by participants in the production process because the answer to that question changes the dynamic of a production team. At the very least, the number of respondents who firmly believed themselves to be artists, whether directly or indirectly, deserve to have their contributions to the production process viewed appropriately.
Having established the modern job function and created a realistic representation of who is performing that job, the paper then sought to determine the origins and subsequent evolution of the position. The earliest articles and documentation from the position date from 1903 at the Metropolitan Opera Company. The earliest surviving contract, also from the Metropolitan Opera Company, is from 1908, and based upon the content, we can be reasonably certain that the position was similar to that of the modern technical director in many ways. Despite the extensive source material available regarding personnel at the Metropolitan Opera Company from the turn of the century up through the late 1920s, this material is unconnected with much else in the source materials.

A surprising number of books from the 1920s and 1930s contain relevant information, although not in a format that is particularly useful to the topic at hand. The obvious sources were the earliest available technical manuals. However, the bibliographic sections in these works led the author to other pertinent works from the same time period. The further afield the research went, the more inference and assimilation of data was necessary to create an accurate picture of how the job functions of the modern-day technical director were carried out during this period. Concrete examples from within the academic community were published in 1928 at Yale and North Carolina, by Selden and Barber respectively. These were strictly how-to manuals on technical theatre processes and procedures. The term “technical director” is used less often, but the reader can infer, based on the material in the books, that the job functions are predominantly the same, regardless of actual job title.

The source material, especially from books that initially appeared to fall outside the
parameters of the research (such as those focusing solely on producing organizations, the amateur theatre, or stage management) show the position evolving from the designers who implemented their own work into a separate position that functioned in a more pragmatic manner. Although, the full realization of the specific position as we know it today did not emerge until the mid to late 1970s. The compartmentalization developed, in part due to the increasing changes in the technology being incorporated into scenic designs. Many of the drawings and schematics from the early literature exemplify methods and procedures that have not changed significantly in the last 80 years. For example, flat construction has been depicted virtually the same way in technical manuals (excepting the innovation of time-saving tools such as pneumatic fasteners and electric methods of cutting and attaching materials together) since the earliest of these manuals were printed in the late 1920s. Even theatrical innovations such as wagon stages and the turntable have been constructed in a similar fashion for many decades; what sets apart the modern equivalent is the incorporation of automation into the finished product.

We are left with an image of an individual who, when his or her job is done well, will most likely never be noticed or recognized in a production. Here is an individual who is as proud of the way a set looks from the back as from the front; an individual who is gratified by the occasional applause garnered by an empty set, but whose sense of achievement is not hampered by the absence of such applause, which is far more frequent. This person is one of the few in the theatre industry who is forced to combine artistic integrity with realistic and pragmatic restrictions. This position is often responsible for ensuring effective and efficient communication and collaboration throughout the production
process. The historical technical director has written entire instruction manuals on the precise steps needed to undertake his job, without ever mentioning his title, or emphasizing precisely how critical is his job function to the production process. We are left with an individual whose attention to detail and mastery of skills ranging from that of drafting, to fine woodworking, to unorthodox metalworking, to budgeting finesse, to project management; these skills have offered directors and designers the opportunity to create theatrical art on a scale heretofore unattainable. Finally, we are left with perhaps a better picture of the technical director than existed before this project was undertaken, both historically and in modernity; which is a good sign for future door placards that read: Technical Director.
BIBLIOGRAPHY


“Saroyan’s Plays are Due at the Belasco Aug. 17 – Behrman’s ‘The Pirate’ to Arrive in October.”  *New York Times* 17 July 1942, p. 17.  Print.


VITA

Aaron Douglas Roose was born July 6, 1982, in Chattanooga, Tennessee. His elementary, junior, and senior high school years were all completed at Chattanooga Christian School in 2000. He received a Presidential Scholarship at Concordia University in St. Paul, Minnesota. Using AP credits from high school and some ingenuity he completed a four-year degree in three years, graduating cum laude with a B.A. in Theatre and a minor in Psychology.

The next several years were filled with various adventures such as backpacking through Europe for seven months with his wife. Mr. Roose and his wife also toured with the National Theatre for Children for an entire academic year. Later, they also acquired commercial driver’s licenses and toured the country driving a 43’ bus doing marketing and promotions for Sidney Frank Incorporated. Eventually, in 2009, he decided to pursue an M.F.A. in technical direction and was accepted at the University of Missouri-Kansas City. His coursework at UMKC and the privilege of studying under Dr. Felicia Londré led him to pursue the M.A. in addition to the M.F.A. He completed the requirements for his M.F.A. in May 2012; however, both degrees will be officially awarded in December 2013.

During Mr. Roose’s time at UMKC he has served as the student technical director for six UMKC-affiliated productions. He taught two sections of Introduction to Theatre during the 2012-2013 school year at UMKC. He also served as dramaturg on two co-productions, one with the Unicorn Theatre and one with the Coterie. He has published three articles in Theatre Training News, a nationally-distributed UMKC Theatre publication. He plans to present a poster based on his developing pedagogy for the Education Commission at
the 2014 USITT National Conference next spring. His goal, after completing both degrees, is to teach at the undergraduate level. Mr. Roose is a member of USITT.