1967

Design and technical direction of The Pied Piper of Hamelin

M. Signe Anderson

The University of Montana

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THE DESIGN AND TECHNICAL DIRECTION OF
THE PIED PIPER OF HAMELIN

By
M. Signe Anderson
B. A. Illinois College, 1964
Presented in partial fulfillment of the requirements
of the degree of
Master of Arts
UNIVERSITY OF MONTANA
1967

Approved by:

[Signatures]
Chairman, Board of Examiners

Dean, Graduate School

5/31/67
Date
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INTRODUCTION AND DEFINITION OF TERMS

The Children's Theater movement in this country has grown rapidly in the twentieth century. Today, the demands of this audience group are being met through professional, civic, and educational groups. The introduction of a Children's Theater program into a college or university Department of Drama benefits that system as well as the audiences that it reaches. The experience and training gained by actors, directors, and designers in working with Children's Theater brings a scope and enrichment to their theater background unlike any other. In many institutions it provides an outlet for younger members of the department to participate in a truly satisfying theater experience.

Since 1962 the University of Montana Department of Drama has included at least one Children's Theater production in each season of plays. In order to reach as many children as possible with this program, this production has frequently toured the state with a number of week-end engagements. For the 1966-67 season the Children's Theater production The Pied Piper of Hamelin by Madge Miller was chosen to be presented at the University of Montana and to be taken on tour to four towns in the state. Beverly Jane Thomas, Director of Children's Theater and costumer for the Department of Drama,
directed the production and designed the costumes. This writer designed and technical directed the production in partial fulfillment of the requirements for the Master of Arts degree in Drama.

This thesis, therefore, is concerned with the design and technical direction of the Children's Theater production *The Pied Piper of Hamelin* as presented by the University of Montana Department of Drama January 27, 28, and 29, 1967, in Missoula, and subsequently as presented in Hamilton, Butte, Chester and Kalispel, Montana.

The duties of designer and technical director as covered in this thesis include the design and execution of the scenery, lighting, properties and sound, the coordination of the technical elements of the production in final rehearsals, and the overseeing of the production for the extent of its tour. This study does not concern the design or execution of the costumes or make-up, although they may be mentioned in a discussion of the coordination of the design elements.

As a further clarification of the intent of this study the terms employed in its description shall be known to have the following definitions:

*Children's Theater* - "Children's Theater is based on the traditional theater concept and is concerned with the producing of plays for children."\(^1\) By traditional

theater concept it is meant the "performance based upon
and following a script by a playwright and staged by a
director."  

2  At the University of Montana the Children's
Theater program is performed by adults for children.

DeelKaer - "The scenic designer... has complete responsi­
sibility for all the visual elements of the production
except, or possibly including, the costumes." 3  In con­
siderating the form of these visual elements the designer
must consider the demands of the script, the style of
production, the intent of the director, and any other
elements which have a bearing upon the atmosphere to be
created.

Technical Director - The technical director is in direct
charge of all technical elements of production. He plans
and supervises construction and operations of the set­
tings. He lights the production and prepares and executes
the scheme for scene changes and alterations in produc­
tions. He is the backstage efficiency expert. 4

Scenery - The scenery is the visual environment for the
action of the play. It may be described as "...a series

2 Kase, Dr. C. Robert. Children's Theatre Comes of Age.

3 Burns-Meyer, Harold and Edward Cole. Scenery for the

4 Ibid., p. 29.
of two- and three-dimensional units that are placed on stage to enclose the acting area. When painted, rigged, and lighted, they form the background for the action of the play."  

**Lighting** - Lighting refers to the selection of the instruments and their positioning and to the control of the quality, color and distribution of the light that they produce. It is the purpose of the lighting to illuminate, give plasticity, create realistic effects, indicate mood and augment the composition of the design.  

**Properties** - The properties consist of "...all practical or decorative parts of the design that are not structurally a part of the setting. They fall into several classifications...Trim or decorative props...are usually placed against a wall or suspended from it. Set or floor props usually stand upon the stage floor and include all of the furniture normally used by the actors. Hand props are objects carried to and from the stage by the actors or used by them while on stage in the performance of established stage business."  

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7 Gillette, A.S., p. 4.
In addition to discussing how this production was executed technically, it is the intent of this study to try to determine the creative processes that went into the original selection of the design, and to make clear how the ideas became realities. A major emphasis, therefore, will be placed upon the "why" in addition to the "how" of the design factors in hopes that this will be of aid to beginning students in design.

In this production there were special problems that were a strong influence in the determination of the manner of the design and technical direction. Problems special to this study were that it was a Children's Theater production and that it was a production that must tour the state. This study shall, therefore, not only be a guide for the student who wishes to examine the process by which one goes about the design and technical direction of a play, but will be of particular interest to that student who wishes to know how the elements of Children's Theater or of touring must be dealt with in this process.
CHAPTER II

ANALYSIS OF THE PLAY

The Pied Piper of Hamelin by Madge Miller is based on the poem of the same name by Robert Browning. It should be made clear that this three act production is merely based on the poem and is not an adaptation of it for the stage. In order to lengthen the story to three act proportions a major sub-plot and a number of rather specific major characters were added. Another difference in this script is the complete reversal of Browning's original ending for in Miss Miller's stage version the children return from the mountain.

The major plot concerns the townspeople of Hamelin, represented by Mayor Dekker, Councillor Holst, their wives and children, the village seamstress and Dirk, the ward of Hamelin, and their problem of ridding the city of the plague of rats. The mysterious Piper arrives and promises to pipe the rats away for 1000 gilders. He does so, but when he is not paid, he pipes the children away as well. In the final act the Piper returns, disguised as a minstrel, and under the pretense of helping the townspeople remember the Piper's tune, gets each of them to give up something that he has.

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8To base a play on a story is to use only certain portions of the original story and its character. Many changes in plot, character and theme may occur.
worshipped above all else, i.e. food, money, fashions. When all have sacrificed their selfishness, the Piper reveals the tune through Dirk, the crippled ward, and the children return to their parents for "the Piper has been paid" with the gifts given to the minstrel.

The sub-plot is devised to reveal the characters of the greedy, selfish townspeople. It is concerned with an old legend about the statue of the Baron von Hamelin in the town square. It is said that whoever can make the statue laugh will get the Baron's treasure. Act I, which is devoted for the most part to developing characterization, lays the groundwork for this plot in addition to getting the rats out of town. During this act the greedy Councillor, the gluttonous Mayor, the fashion-conscious wives, and the spoiled children all show themselves at their worst.

In Act II each character makes a ridiculous and unsuccessful attempt to make the Baron laugh, but all are diverted from this at the end of the act when the children are piped away. This plot is resolved at the close of Act III, however, for when the children return, Dirk, the crippled boy, dances without the aid of the crutch which he has unselfishly given to the minstrel, and the Baron laughs. The treasure is Dirk's and as Miss Miller concludes the tale he will then go forth, with the blessings of the townspeople, all of whom have learned their lesson, to accompany the Piper and become one of the two "Pied Pipers of Hamelin." A change was made
in our production by Miss Thomas, the director, however, and the play ended as Dirk received the Baron's treasure much to the aggravation of the townspeople. Miss Thomas gives the following reasons for the change in the script:

I felt that the ending should be changed because in the first place it was too far from the ending as Browning conceived it. The play should not end happily if it is to be true to the original in feeling. Having the townspeople aggravated at Dirk's getting the money shows that they did not change overnight. This is closer to true human nature. The lesson that 'Leopards don't change their spots' is another moral that can be found in Browning's intention. I felt we should remain as true to this as possible without going so far as not letting the children return.  

The problem of creating a full-length play from a poem or legend as short as Browning's original "Pied Piper of Hamelin" is a difficult one. The dangers involved in such a venture should be considered in this analysis for they definitely became a question in this production. The employment of such a fully developed and unrelated sub-plot as is used in Miss Miller's version is not necessarily an aid to the production. In the text Children's Theatre: Play Production for the Child Audience it is suggested that... "Since the plot of a children's play should remain relatively simple and uncomplicated, the introduction of a strong sub-plot is questionable...in a children's play they the sub-plots should retain direct relationship to the major story...

Thomas, Beverly Jane, May, 1967.
line and actually contribute to the rise of the play to its climax. Miss Miller's technique makes a strong story line very hard to find and follow, particularly for the younger members of the audience. Confusion may be created, concerning what the play is really meant to be about. In addition, the two plots were treated so equally that each detracted from a strong feeling being aroused about one or the other. Not enough time was given to either one at enough length. A children's audience is eager to become involved, and in this production their whole-hearted involvement may have been too easily lost by the confusion and conflict of interests.

Another danger involved that affected this play was concerned with the method by which the necessary major characters were created. There was a need to build characterizations for all of the characters except the Piper himself. It is unfortunate that almost the entire first act is taken up with this development, for the method by which it is accomplished does little to further the action, and the young members of the audience are easily bored when something doesn't "happen" right away. Again the authors of *Children's Theatre: Play Production for the Child Audience* advise that... "Since the forward progression of the play cannot be halted for

character development, all characterization must be achieved in the normal unfolding of the plot.\textsuperscript{11} The characterizations involved are simple and numerous as well, and therefore another division of interest is created. Children are quite willing in these productions to make judgements and to take sides, but no characters are so fully developed that they can easily do this, nor are they encouraged to, even with the Pied Piper.

There do remain, however, many values for the children to gain and much for them to enjoy. For those who are unfamiliar with the legend it is there for them to see and hear. Also it will be that much more familiar to them when met again in later literature classes. For those who are familiar with it there is always the thrill of seeing a storybook tale come to life before one's eyes. A number of the opening scenes and second act scenes were developed to the point of encouraging audience involvement and participation, and this did a great deal to increase their interest and help their understanding. In addition characterization was made as exaggerated as possible by the director for comic effect.

The values morally and thematically were also considered. There is the lesson that "the Piper must be paid" as well as the realization that selfishness and greed really get one

\textsuperscript{11}Ibid., p. 65.
nothing and only make one unhappy in the end. In the program, emphasis was placed by the director on the intent of the moral content. "The Pied Piper is one of our more recent children's tales. In its original form, a poem by Robert Browning, the children never return. Our version is slightly different, but we have tried to retain the original moral of the story, for, in the final analysis, The Pied Piper is a story book morality."\textsuperscript{12} There is also the value of the language to be considered. This is often lacking in children's plays, but here many of Browning's original lines are retained and will ring familiar in later years. The director and designer also felt there was an aesthetic value to the style and period of the costumes and set that were used. This will be discussed in Chapter III.

\textsuperscript{12}Program: The Pied Piper of Hamelin. (University of Montana, Missoula, Montana).
PART I: Arriving at the production approach

After studying the script carefully, the designer and the director, who was also the costume designer, held several production conferences. It was understood that in resolving a design approach for this production the factors already mentioned (that it was a Children’s Theater production and that it would tour) must be taken into consideration along with the other elements that would be desired. With this in mind, the values of the script itself that were to be stressed were first discussed.

The most essential element seemed to be the value of the piece of literature upon which the play was based since the portion that should be of most interest was on an old familiar tale. It was desired that this element, that we were presenting a storybook legend, would be, if possible, the keynote of the design.

Of second importance was the period of the play. As noted by the playwright, the play takes place in 1294, placing it in the early Gothic period. This is one of several favorite “fairy tale” periods. It was the director’s particular desire that the play be brought forward approximately three hundred years, however, to the period of German Renaissance for the particular value of the more colorful
and elaborate costumes and sets that could be created from elements in that period as opposed to the early Gothic. Both director and designer agreed that it would be of value to choose an exact and an interesting period for this production since this is one of the indirect educational values of it as a piece of Children's Theater.

As another element to extend the suggestion of period, the possibility of having the set retain the mannerisms of theatrical productions of the Renaissance period was discussed. The possible use of periaktoi\(^{13}\) was first considered, but was soon rejected. Since there is no need for any scene changes within the script, the real value of using periaktoi would be negated. The idea of employing a modified wing and drop set seemed more plausible, however, and was noted for further consideration.

The matter of how the sub-plot would or would not affect the design was next considered. It was suggested that the importance of the actual statue of the Baron von Hameling, around which the sub-plot revolves, would be of a secondary nature and that in some manner the design would allow the Pied Piper the greatest focus whenever he was on stage.

Two elements were considered as means of visually directing emphasis to the main plot. The first and most

\(^{13}\) Periaktoi- revolving prisms, having a scene painted on each of three sides, used by the Greeks and reappearing in the Renaissance.
obvious means concerned the scene involving the exodus of the rats. This scene should be one of the more important climaxes of the production, and is, in fact, the only real action in Act I. As presented in the script, the rats are never seen by the audience, but are "hidden" from view by the townspeople and the extras as they clasp hands and face upstage watching the rats pass in front of them. This diversion seemed unnecessary, and it was decided that to help point the action and to delight the children in the audience we would produce this exodus visually.

The second major factor capable of drawing emphasis to the main plot was the appearance of the village itself. If the village were to appear terribly distressed by the plague of rats it should be "mothy", "chewed" and generally dishevelled as would be the characters as well. Due to factors that will be discussed later, it was decided that this would not be a good element to include as a major visual factor.

In addition to these suggestions regarding the visual qualities of the script in terms of "what the play was about," the director had several requirements and suggestions that concerned desired blocking and action which would affect the design. Foremost, and not to be discarded, was the need for the greatest number of levels possible. Since a set with a complicated platform system is impractical for a touring situation, and since the height limit was set by necessity
at twelve feet, this was a problem and a challenge for the
designer to face. The need to include a number of hiding
places was also important, but did not seem to present any
problems. Since it was known that our stages on tour would
at times be quite small, it was pointed out that there must
in every location remain a central playing area large
enough to include eight child extras in addition to the
major characters. A variety of entrances and exits in addi­
tion to doors in buildings was also desired for the rather
important scene in which the Piper pipes the children away.

Having considered the needs of the play as a script and
as a production, the needs of the child audience were then
considered for a more detailed examination of how they
would affect what was desired. The general desire for an
attractive and broad use of color was stressed first. The
conclusion was that a colorful, "gemlike" quality would be
desirable. In coordinating a color scheme the costumes
would pick up many of the same colors as the set but would
be deeper tones of those colors. In keeping with this
quality it was felt that an attempt to make the village
ravaged and dishevelled would dispoil the quality that was
desired for the striking and crystaline beauty of the color.

Second in consideration was the desire to have this
production appear as seen through the children's eyes. The
key expression became "the realistic world of a child's
imagination." It was felt that this element would tie in
well with the earlier desire to stress the storybook quality visually. An attempt would be made to have the set appear like a realistic storybook town just as a child would imagine it. This concluding factor became the most important element in the key to the right design approach and was achieved quite successfully. In accordance with this it was felt by the director that deep within this play lies a wish fulfillment of the child to be able to escape from his parents, follow a piper, and go to a land where everything is wonderful and fun all day. It was desired that in creating this storybook village it be one in which the child could imagine this sort of thing happening to him. This extension of the original idea is more nebulous, but was kept in mind none the less.

In these early conferences there were also several considerations that concerned the designer's additional job as technical director. Music and dancing are an important element in this production and their value should not be slighted for a children's audience. The arrangement for and selection of this music was left to the technical director with the final selection to be made by the director. In addition it was the director's decision that all music, including the Piper's piping would be recorded.

In taking an approach to the lighting the only particular requests of the director were that as much as possible be done to create the early evening atmosphere suggested for
Act II. This must be accomplished within the rigorous limits of tour lighting situations in addition to the problem that this production would be touring through the run of another show and would have the problem of a division of a limited amount of lighting equipment.

The question of the approach that would be taken with the properties was also considered. It is often the case in Children's Theater productions that properties are of exaggerated proportions for the necessary immediate identification of the young audience members and for stronger emphasis. It was decided that the properties in this production would not follow that school of thought since the essential emphasis was on certain degree of realism. In trying to use these items to point up the more realistic side of these characters as people with more than a storybook nature an incongruity was perhaps created in the accomplishment of the total storybook picture.
PART II: Arriving at the design

Research is a very necessary part of the preparation for arriving at a design. In this situation three types of research were utilized in the initial attempt to establish the methods of capturing the atmosphere desired for the design and to capture the necessary realistically based elements. History and travel books were consulted to find elements and styles of the early German cities and towns that would fit what was desired. (See Bibliography for exact reference). Notes and sketches were made concerning details that would be interesting: door structures, window panings, roofing techniques, and general architectural decor. Attention was given to individual buildings, groupings of buildings, and to the arrangement of distance views for it was felt that all of these elements would appear in the final design.

The second type of research concerned designs in general for Children's Theater productions. This was considered inspirational research. It was not the intention of the designer, however, to follow a Children's Theater style, if there is such a thing. The purpose of this type of research was to acquaint the designer with what had been done in this field that was of interest and might be helpful in establishing a style for the needs of this production. This phase of research proved interesting but, unfortunately, did not lead the designer to any inspiration for the
design scheme.

The third source used led to the basis established for the design. Since it had been decided that the storybook value of the Pied Piper legend would be emphasized, several illustrated versions of this poem were consulted. It seemed to follow naturally that the design which we wished to present could best be pictured as an actual storybook illustration. Further research through children's books of all varieties brought the designer to the conclusion that a soft pen and ink, water color wash style, if it could be achieved on stage, would not only appear as an illustration, but would retain the clear, gemlike quality desired for the colors. With this established, children's books that particularly concerned the period involved were consulted to investigate the manner in which they characterized the elements of building design unique to that period. This manner of research in conjunction with the authentic material from the travel books proved to be quite satisfactory in supplying the designer with sufficient material that would be of interest to the eye.

The next step in arriving at the design was to establish the form that the village would take. Research involving a wing and drop system was carried out, and it was felt that some use of this form could be employed. The designs of Inigo Jones were found particularly grand and inspiring. It was first thought that a system involving
completely two-dimensional cut-out wings in conjunction with a series of ground rows and a backdrop would be rather interesting. The director felt, however, that in order to establish "the realistic world of a child's imagination" that was developed as a part of our initial approach that at least some, if not all, of the set should be three-dimensional with usable doors and windows and three-dimensional trim. Because of our touring situation it was impossible to consider carrying this form throughout the entire design, but it could be incorporated to a certain degree.

In preliminary sketches it was found that with our limited stage depth, due to the dimensions of certain theaters in which we would be playing on tour, it would be more successful to create a town square or the center of town rather than to try to create the illusion of a main street receding into the distance. The buildings, therefore, would be set to each side of the stage and the added element of streets would be created in other ways. A platform walk was to be placed at the back of the set running parallel to the curtain line. Along this walk would be placed a wall seemingly beside the River Wiser. Beyond the wall lay the river, the rest of the town and countryside, all of which would be portrayed on the drop.

The creation of the shops visually was not a severe design problem for enough material was available through
the research that they were easily made interesting. Each was established as a certain kind of shop, and the elements that were to be sold there were shown in the windows. There was a major problem, however, in establishing the degree to which all of the shops would be three dimensional and usable. If all of the shops were three dimensional in character not only would they be difficult to tour but they would contrast greatly with the two dimensional backdrop. Stage space would also be limited, and the designer felt that the illustrated quality would be hampered if not enough detail was actually painted.

The final conclusion reached which satisfied visual needs, blocking needs, and the requirements of tour was that the two shops downstage would be three dimensional in form, but would have a combination of painted and three dimensional detail. These shops would have one side facing the audience and one side shown facing the "square". The shops placed upstage would be completely flat and would be parallel with the curtain line. Almost all detail on these shops would be painted. This final arrangement allowed for having enough shops to create the feeling of the center of town with cross streets coming into it, and at the same time fulfilled the following requirements:

1.) an effect of a wing and drop set since each set of shops was towards the edge of the playing area and continued off into the wings;
2. a large central playing area, particularly downstage;

3. a variety of levels, since doors and upper and middle story windows were available downstage in addition to the platform and the wall upstage;

4. several hiding places, in and between the shops;

5. several entrances and exits in addition to the doors, six in all; and

6. an easily collapsible and not too bulky set for touring.

Two technical elements were also taken into consideration before the design was complete. The first was the exodus of the rats. After careful study of a number of plausible solutions, it was decided that the rats would leave town via the back platform and the top of the wall. This solution had several advantages. It placed the action upstage where perhaps the mechanics of it would not be too obvious, and at the same time would elevate the rats off of the stage floor so that they would catch the eye of the audience more easily. No special rigging was necessary in the design of the set itself, however, to make this exodus possible.

The second element did effect the design of the set. This concerned the lighting for Act II. Because there would not be extra instruments for early evening special effects, it was decided that as many of the windows of the set as
possible would be cut out, even if they were not practical, as in the upstage shops, and lit from behind for this scene. Lanterns that could be lit would be added to the shops as well. In this way as the general illumination dimmed the lights in the houses seemed to come on.

After all of these elements were studied in the forms of sketches and notes, the final design was completed and rendered. Because the designer was aware that some of the painting would be done by persons other than herself, and because this was such an important element in the design, great care was taken in achieving a final rendering that clearly established the painted effect desired. The extra time spent in working and reworking this rendering proved profitable, for even in the hands of another student painter the desired effect was achieved.

The finalized plans can be seen in Drawings 1 through 5 and Appendix I: the ground plan, front elevations and photograph of the final rendering.
PART III: Execution of the Production

There are a number of tasks that must be taken care of once the design is settled and before construction can begin. These duties include preparing working drawings for all items to be constructed, ordering materials within the budget allowed, making up the basic work schedules so that deadlines will be met, and finding construction and running crew members. These duties are taken care of under the designer's other title, technical director.

In this situation the working schedule was of primary importance due to the heavy production load at the time the play would be presented. The Pied Piper was the third of five shows scheduled for the winter quarter (January thru March, 1967). Plans were made to start construction prior to the Christmas break. With this in mind, working drawings were prepared for the four shops that were to be included in the set and plans made to complete the work on these units before the holidays.

The length of the holidays allowed the designer to prepare complete and accurate working drawings for all of the other items to be constructed. Having these detailed drawings available made the construction period that followed the holidays less hectic than it might have been.

Construction crew members were a problem. Of the three other staff assistants that would be available, only one was not directly involved in the two productions preceding The
Pied Piper. The designer, herself, would be required to give time to these productions as well. Large crews would not be available to concentrate on this production until the weekend preceding its opening. The set could not move onto the stage until Sunday of that weekend. For these reasons much work was left until this final week, to be completed in time available in the afternoons and the late evenings following technical and dress rehearsals. This plan is not recommended for normal scheduling, but was a necessity in this situation.

Finding running crew members was not a problem. Students enjoy going on tour and the consideration required here was how to sort out those who really wanted technical experience on tour from those who wanted to go for the fun of it. A very small crew was to be included for the tour: a stage manager, one person to run sound, one to run lights, and one as electrician and stage hand. Property, make-up and costume crew members would come from the cast. On tour when extra hands were needed for pulling the rats, the director and the designer would be available.

With these preliminary plans under consideration, construction began.

The Setting

Construction began with the basic flats to be used for the four shops. (See Drawings 6 through 9). Flats of the proper dimension were pulled from stock and reworked to
include the necessary window and door frames. The only flats that were built completely were the irregular cut-out sides of the upstage shops.

After the window and doors were added, the flats for each of the shop units were hinged together so that each shop would fold and travel as a unit. When the side masking pieces were added these too were able to be hinged to the unit. The flat upstage shops became regular three-fold units employing a tumbler.¹⁴ The three dimensional, downstage shops folded in such a manner that tumblers were not necessary. The back masking pieces necessary for the units were two-fold sections that fastened to the upstage edge of the shop with loose pin hinges. This easily collapsible system was extremely speedy to set up on tour. Time was also saved on the larger downstage units for when unfolded, with the masking units fastened, they were free standing. The other units required two jacks ¹⁵ each.

A variety of techniques were employed in construction of the various windows and doors. There were two practical ¹⁶ windows. The three dimensional bay window will be discussed

¹⁴tumbler - a vertical length of 1x3 hinged to two flats of a three fold section that will permit the three flats to fold into a compact unit.

¹⁵jack - a triangular frame of 1x3 placed on the back of scenery to brace it.

¹⁶practical - workable.
with the other three dimensional units. The other practical window was the narrow window of the shoe shop. This was cut from plywood according to the specifications in Drawing 11 and hinged to the window opening. White netting was stapled to the back side of the window to simulate glass. A screen door hook was attached to the back and held the window shut for convenience when handling on tour. One window in each shop was to be used to show the items sold in that shop. In the downstage units these windows were cut-out and false paning made of Upson board\(^{17}\) (see Drawing 10) was applied to the rear. Hung directly in the window opening was the window "drop" on which the necessary items were painted. In this manner the required depth of the window was created. The display windows of the upstage shops were simulated with paint alone. The upper windows of all of these shops were cut out for the sole purpose of being able to be lit from behind for Act II. They were covered on the back with cheese cloth to diffuse the light.

The doors were covered with muslin on both sides. To create an indication of some depth for the window portion of the door, the muslin was removed from the window opening on the front side of the door. The window effects were then painted on the muslin that remained in the recessed opening. (See Drawing 12).

\(^{17}\)Upson board - a composition board similar to thick cardboard.
The various three dimensional units were the second major project. The bay window (see Drawing 13) and the two roofs (see Drawings 14 and 15) were constructed without much difficulty. Although these items would be attached to the set, they had to be removable and sturdy enough to travel without falling apart. Careful construction techniques were employed. To cover the roofs, 1/8" Upson board was first attached to form the roof surface. Shingles of Upson board were cut, soaked in water, slightly curled and allowed to dry before gluing and stapling them to the Upson board cover. It was originally thought that these units would have to be bolted securely to the flats. In our first set-up in Missoula, however, this proved to be difficult and unnecessary. When the set was taken out on tour, S-hooks\(^{18}\) were used to attach the roofs, and the bay window was attached at the the top only by two bolts with wing nuts\(^{19}\) to speed the manner in which they were secured.

The wall, constructed in two sections so that it could fit in the truck for tour, was built from stock flats placed on their sides. (See Drawing 17). The 1"x3" spacers, although securely attached, were not strong enough to withstand the

\(^{18}\)S-hook – made from strap iron and bent into a modified angular S shape so that it can be slipped over one section of 1" lumber and hold another section in the other portion of the S.

\(^{19}\)Wing nut – a threaded nut with the extensions or wings on each side that made it possible to tighten or loosen it with the fingers.
use given this unit and frequently pulled loose. The method used to create the rock front (muslin and glue over chicken wire) was quite adequate, however, and wore like iron. The wall was held upright by three short jacks on the back, which were held down by twenty-pound counterweights.

The platforms to be used with the wall were all pulled from stock. Two 3' x 6' and one 3' x 8' platform were employed. Additional height was not added to these platforms leaving them at approximately four inches high. This seemed an adequate sidewalk height. It was decided that since relatively no height was involved it would be no more problem to take solid platforms on tour than anything else.

The construction of the statue of the Baron von Hamelin (see Drawing 18) gave little trouble. The mechanism to release the "gold" pieces was not complicated and worked well (see Drawing 19). Bolting the separate pieces of this statue together seemed the strongest method and was successful.

The drop that was used was another item that came from stock. It had been used in another touring production and had relatively little paint on it. (For standard drop construction see Gillette, *Stage Scenery*, p. 96).

The Painting

To begin the painting, the flats to be used were all base coated a cream color. (It should be noted that casein paint was used for this entire process). This technique was chosen
so as to give the appearance of paper beneath the painting. As the colored paint was then applied, the surface was not completely covered, leaving the "white" highlights of the paper desired. This technique was followed in the blocking in of all basic color areas. The long process of shadowing and deepening the colors waited until early in the final week of work. Until this time the painting had been done in a confined area. Completing the job once the set was on stage seemed the wisest plan since the technique involved a careful and delicate approach. The effects as seen from a distance and as lit had to be considered at all times. The entire texturing\textsuperscript{20} technique was based on making use of the brush strokes and on dry brushing.\textsuperscript{21}

The same technique was followed for the drop. The cream base coat was applied and the outline sketch (see Drawing 23) drawn on with charcoal with the aid of an overhead projector to project the design on the surface of the drop. Unfortunately, the painting of the drop was another item left until the last week. The basic color areas were applied the afternoon before the first technical rehearsal. These colors were deeper than actually desired and were applied in very solid areas. This departure from the established technique was a

\textsuperscript{20}texturing - the process of giving a quality of depth or three dimensionality to a flat surface by the use of paint.
\textsuperscript{21}dry brushing - a streak type texture achieved by pulling a partially charged brush lightly across the surface to be textured.
mistake and was never completely repairable. The final day of work on the set, the middle distance section of the drop was worked on to add detail. It had been pointed out that the change from the precise detail of the upstage shops to the vague detail of the entire drop was too great and that a middle distance section must be distinguished.

The Properties

The trim props were completed the final week along with other details. These included the signs and lanterns to hang on the shops, the window boxes, window "drops" and flower pots. (See Drawing 20 through 22). To be consistent with the painted appearance of the set, plastic flowers were not used. Flowers made of muslin were made and dipped in paint. This seemed to fit more naturally with the rest of the scheme.

The set props consisted of two items only. The small bench was pulled from stock. The second bench was constructed so as to be collapsible for touring purposes. (See drawing 16). Such a procedure is advisable when touring any items large and bulky enough to cause storage and/or handling problems.

The hand props were fairly simple items (see Appendix II) and finding or making them was not difficult since the items were to be of a realistic rather than an exaggerated scale.
Music and Sound

The music in this production is a very important element. In order to achieve exactly what was desired for the Piper's music and for the old-world dance music, a music student was asked to compose the melodies desired. This was extremely successful. Flute and guitar were used for the dance music, while flute alone was used for the Piper. His major enchantment music was taken from a recording of 15th Century recorder music. (See Appendix III) This music had the underlying enchanting accompaniment of finger cymbals.

All of the music was recorded on a tape recorder. The dance music was used several rehearsals prior to the technical rehearsals. The coordination of the piping music to the actor's miming of the piping on stage began with the technical rehearsals, but did not prove exceedingly difficult.

The sound effects of the rats leaving town and of the mountain opening to swallow the children were the only live sounds. This was necessary due to the fact that each occurred during a recorded music cue, and a stereo tape recorder or a second recorder were not available. The sound of the rats was simulated by the scraping of finger nails on the head of the microphone. The second sound of the mountain opening was created by rolling a short piece of lead pipe along the length of board with several short sections scored to create ridges.

It is often a practice in Children's Theater productions
to use music before the show and during the intermissions as an audience soothing device. Music of this nature was not used in this production, however. Having no scene changes to make, the intermissions were very short, and the director felt that music would not be necessary.

**Lighting**

*The Pied Piper of Hamelin* does not make severe demands on the lighting designer. General daytime illumination is the basic requirement throughout most of the production. For Act II a change to late afternoon and/or early evening is called for. A warm bright feeling was desired not only for the reasons that the production was played for basically happy or humorous effects, but these are pleasing qualities visually to the children. The action of the play does not call for any particular amount of area control, although the areas were important in the distribution of the lighting, since the number of instruments available was at a minimum.

The stage was divided into eleven basic areas (see Drawing 24) employing twenty instruments for these areas. These twenty instruments were distributed between five of the six dimmers\(^{22}\) available on the dimmerboard.\(^{23}\) Each

\(^{22}\) dimmer - an electrical device for varying the amount of light from the instrument.

\(^{23}\) dimmerboard - an enclosed "cabinet" incorporating the switches, dimmers and interconnecting devices used to control electricity for stage lighting purposes.
dimmer had a capacity of 2500 watts. In order to handle this many instruments all lekos hung on stage were supplied with 500 watt lamps instead of the usual 750 watts. In this manner five instruments could be handled on one dimmer. The lekos for the downstage areas were positioned in the auditorium on fifteen foot towers and because of the distance from the stage their 750 watt lamps were retained. These six instruments were of necessity supplied by two dimmers. The one remaining dimmer supplied the two striplights used to light the drop.

In addition to these instruments for the area lighting two side towers were employed for some strong directional side-lighting for Act II. The downstage tower held a leko and a Fresnel and covered the entire downstage area. The upstage tower had only one leko and covered the area by the Baron's statue. These instruments were powered from a small additional dimmerboard available for most of the tour.

In selecting gelatine colors for the warm bright

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24 leko - the common name used for the ellipsoidal spotlight, an instrument employing an ellipsoidal reflector and some variety of plano-convex lens; usually used for long throws due to its high efficiency.

25 striplights - an instrument containing a number of lamps in a row, used for general lighting.

26 Fresnel - a spotlight using a Fresnel lens, a lens with a number of concentric circles each pared down to the same thickness, giving a soft general light.

27 Gelatine - a color medium placed in front of the lens of a lighting instrument to color the light.
qualities of the light desired were considered. Flesh pink (Brigham\textsuperscript{28} \#3) and Flame (Roscoe\textsuperscript{29} \#211) were chosen for the area lighting. Dark Amber (Brigham \#60) was used for the sidelights. Flame was also used in the striplights for the drop.

To light the windows in the shops from the "inside" R-30 floodlights in swivel sockets were attached to the back masking flats of the downstage shops, creating a full inner glow, and music stand lights were clipped directly above the windows on the upstage shops. Small Christmas tree type lamps were wired into the lanterns of the upstage shops as well. This entire system was plugged directly into a regular wall outlet at the beginning of Act II and unplugged at the end.

The number of lighting cues was very limited. Aside from the slow dim out creating the sunset at the close of Act II, the only other cue within an act was for the exodus of the rats. At this time the platform area light was dimmed several points so that the effect of the rats would not be spoiled by too clearly showing their flaws.

The lighting set up as accomplished in Missoula was as close to the touring set up as possible. Cable was strung from all units to the dimmerboard, bypassing the availability of the University Theater circuiting except for the house

\textsuperscript{28} Brigham - a manufacturer of gelatine.

\textsuperscript{29} Rosco - a manufacturer of gelatine.
towers. The normal balcony positions were used for these. With this set up it was quite simple at strike\textsuperscript{30} to list all cabling and miscellaneous equipment that would be necessary to complete the set up again on tour.

\textbf{Special Effects}

Children's Theater productions are notorious for their special "magical" effects. This production includes two such effects. Each of these has been discussed to some extent already. The exodus of the rats was accomplished in a very simple manner. Approximately thirty rats were sewn from muslin, stuffed with newspaper, attached to flat cardboard bottoms, and painted. A muslin runner two feet wide and approximately thirty feet long was sewn together and painted to blend into the surface of the platform. Long heavy strings were attached to one end and were strung the length of the platform before the show. At the other end, the runner was carefully stacked in folds and the box of rats was placed close at hand. At the appropriate moment one person pulled the runner and another person on the opposite side placed the rats on it as it went by. This system worked well and packed easily into a large box for touring. The rats along the top of the wall were attached one to the other with heavy black cord. One person guided the rats onto the wall and another

\textsuperscript{30}strike - to take apart and/or remove a set of scenery from the stage area at the end of a production.
pulled them across. Unfortunately, these rats frequently fell into the River Wiser rather than escaping from the city!

The second effect was the release of the gold treasure when the Baron's statue laughed. A long heavy cord was attached to the slide mechanism as seen in Drawing 19. This cord ran through a screw eye at the base of the column and directly off into the wings. When the cord was pulled, the "gold" coins, made from washers spray painted gold, poured from the Baron's gaping mouth.

**Technical Rehearsals**

The technical rehearsals began four nights before the opening of the show. The purpose of the technical rehearsals was to incorporate all technical elements (set, props, lights, sound, special effects), familiarize the cast with these elements, familiarize crews with their duties backstage and to set the timing and intensity levels for the sound and light cues. Since the stage manager was inexperienced, time was spent with him before these rehearsals began in explaining his duties and responsibilities before, during, and after the performance. Additional factors in these rehearsals were the inclusion of the child extras, and the time spent working on the rats. By the third evening, which was the first dress rehearsal, all cues, effects, and children were under control.

As dress rehearsals began the designer paid careful attention to the complete visual picture of the set, lighting, and the costumes, to determine any incongruities that may have
occurred. Fortunately, no major problems developed.

The afternoon of the opening, last minute details were finished, and the scene shop, painting and backstage areas were cleaned. These tasks did not end the duties of the technical director, however. The task of readying the cast and crew for their part in the photography session had to be taken care of, and at the end of the run the set had to be struck. Strike in this case did not mean a dismantling of the set but rather the storage of all parts in convenient places in preparation for packing for tour. These preparations and all other considerations for tour will be discussed in the following section devoted to the touring process.
PART IV: Touring the show

To prepare for going on tour, it is very important to know as much about the theaters to which one is going as possible. Ground plans of the stage area are particularly necessary even before design work can begin. The width of the proscenium opening, and the height of the opening, and the depth of the stage must be taken into consideration. Specification sheets (see Appendix V) can be sent to the theaters in advance to obtain as much information as possible. (One must always keep in mind, however, that the persons completing these sheets are not always theater-oriented and the information that one receives may be vague and at times inaccurate due to misunderstandings about what it is necessary for one to know). From these sheets, one also takes note of extra items to carry (extra battens, ladders, lights for make-up) and of alterations to make in the ground plan or lighting plot.

To facilitate the packing and to be prepared for reloading, lists are made of all items taken in each area: set, props, lights, sound, make-up, and costumes. A master check list notes these items as prepared for loading: two boxes, three crates, etc. (See Appendix IV). In this manner the technical director can quickly check if the proper boxes are available for loading and reloading. Although it is the responsibility of the person in charge of each area to see that all of the proper items are packed at the end of each
touring engagement, it is a good idea for the technical director to check the theater area for items left behind, and to inquire from the complete lists about specific items.

Upon arrival at the theater at which one is playing, the first duty of the technical director is to make a fast check of items or situations that will cause a change in the normal set up or in the procedure of that set up. This is done as the crews are unloading the truck. It should be anticipated that something of this nature will appear in every situation. Using the specification sheet as a guide the following items are most necessary to double check immediately:

1.) measurements of the stage - Our group arrived at one location prepared to complete our set up on a stage within a cramped depth of sixteen feet and found, fortunately, that there was twenty feet instead.

2.) number of free lines - Sponsors often neglect to indicate that although a stage may have twelve lines, eight of them are full of permanently hung drops, movie screens, or old scenery.

3.) rigging\textsuperscript{31} - How are the lines lowered and \textit{can} they be lowered? How much weight can they support? Do they all work? Finding a system in which the lines do not lower, but

\textsuperscript{31}rigging - the system by which the lines are raised or lowered.
are "hung dead"\textsuperscript{32} means that extra time will be needed to hang the lighting instruments.

4.) overhead masking - Is it available if needed and will it have to be moved to other positions?

A number of miscellaneous items should also be checked to facilitate unloading:

1.) location of the power supply so that dimmerboards may be brought to the proper area.

2.) location of make-up and costume areas. Make note of available light, table space, and sink arrangements.

3.) entrances to stage area, to auditorium and cross-over\textsuperscript{33} space backstage so that actors may be warned of awkward situations.

The procedure for unloading and setting up varies with the needs of every production. For the \textit{Pied Piper} the following procedure was generally followed as an unloading and set up plan. All lighting equipment, small boxes and pieces were unloaded to the extreme downstage areas. The large flat units, wall sections, platforms and three dimensional items were unloaded to the back and sides of the stage, the flats usually going to the sides. Costumes and make-up were taken directly to their area.

\textsuperscript{32}hung dead - refers to lines which are permanently secured to the ceiling or to a structure holding the lines.

\textsuperscript{33}cross-over - the space between the back of the set and the back wall, making it possible for actors to cross from one side of the stage to the other during performance.
When all items were unloaded costume and make-up crews were dismissed to begin their own set up. As the electrician began the process of attaching the power to the dimmerboards, the rest of the cast and crew began the light hang. Although this is usually the last stage of the set up, this procedure was necessary here because when the large flat units were opened out and in position, the lines for the light battens could not be lowered in. Three members were assigned to the towers in the auditorium, two to the towers on stage and the remainder were divided between stringing cable and connections, hanging instruments, and cutting gelatine. Masking borders were hung or rehung at this same time if necessary. When all instruments were properly hung and sufficient cable run to reach the dimmerboard, these lines were raised. The two lighting crew members were then set to working on plugging the cables to the proper dimmers while the other crew members brought the flat units on stage and set them in position. When these units were in place the drop was hung and the platform and wall sections put in position. At this time the remaining tasks of setting up the sound, attaching the three dimensional items, the trim props, the set props and the lighting equipment for the window units, and clearing the back stage areas were divided among the crew members. When the plugging for the dimmerboard was complete, the technical director and two lighting crew members adjusted the masking trim, lowered or raised the light battens to the
required heights, and then angled all the instruments. All instruments were turned on and the entire effect viewed from out front before the job was considered complete.

When the set up was complete, the technical director and stage manager checked all areas to see that work was complete, the area uncluttered, and those items that the actors must be made aware of written down for this purpose. The duties of the crews for the running of the performance often underwent minor changes due to the positioning of the dimmerboards, the house lights, sound equipment, curtain, and the rats.

Once the show began, the technical director usually went out front for a few moments to check performance levels of lights and sound in the new situation, and then returned back stage to make the minor adjustments.

When the show was complete, strike of the set began following a procedure which was the opposite of the setting up procedure. The loading of the truck was started as soon as the flat units were taken down. The men in the cast and crews worked on the loading while the women completed the packing of the small items and the cleaning of the areas.

The last and final duty of the technical director on tour was a complete check of all theater areas that were used to see that nothing had been left behind and that all areas were clean and in the arrangement they were in when the group arrived.
CHAPTER IV

CONCLUSION

The intent of this study was to describe the processes of the design and technical direction of *The Pied Piper of Hamelin* with particular emphasis on the determination of the creative processes involved and in the resolution of a complete design. To accomplish this intention the duties of the designer and technical director were described in detail with explanations concerning the organization, construction, final rehearsal and touring phases. This outline of duties and the description of how they were accomplished should be an aid to any person wishing to take on these duties.

To satisfy the remainder of the intention the step by step process by which this designer reached a design was analyzed in full. This of course is only one method by which a design may be created, but it is a sound one. A firm basis of analysis and research from a number of sources should lead to a satisfactory background for a design. As described, many technical aspects influence the form that the ideas gleaned from the research will take. In attempting to explain the particular scenic forms taken on by this production each factor was explained in terms of why it must influence the design as well as how it would carry out this influence. This process, as one example to follow, should be helpful to a beginning designer who is at a loss as to how his ideas can
be formed into a design and then into a set.

The factor of how the Children's Theater element was and can be an influence was treated when analysing the play and its needs. The elements of plot emphasis, and visual values and pleasures considered here are perhaps only a few of the elements that are involved in this influence but should serve as good examples of how they must be treated.

In conclusion the designer would like to make note of two particular elements observed by this study:

A set does not necessarily have to be simple, that is with a limited number of set pieces, to tour well. The set for The Pied Piper of Hamelin was fairly complete although not a large set. The factors that made it an extremely handy set for touring were that its largest units folded easily and compactly, and that all items to be attached to these units attached with a minimum of strain and time involved. In almost all cases items could be attached without tools. The achievement of such a set is quite helpful to a touring production.

It was also reaffirmed that Children's Theater is a fascinating and rewarding phase of theater to design for especially if one is playing to a great number of children who have never been introduced to theater before. This designer was rewarded many times by the look of awe on the children's faces as they came up on the stage after the
performance to see and touch their first set. This experience was an unexpected one for this designer, but one that will be long remembered.
Appendix I

Photographs
APPENDIX II

Property List

Act I: Wooden crutch - Dirk
        Scroll - Tilli
        Recipe - Madame Dekker
        Bag of coins - Madame Dekker
        Bag of coins - Madame Holst
        Wooden pipe - Dirk
        Knife - Dirk
        Pipe - Piper
        Tablecloth - Madame Holst
        Handkerchief - Dekker
        Thirty rats and muslin runner - Special Effect

Act II: Coins - Dekker
        Gold piece - Holst
        Long feather - Madame Dekker
        Yoyo - Madame Holst
        Mask - Hendrik

Act III: Scroll - Dekker
        Purse - Holst
        Gloves - Madame Holst
        Book - Madame Dekker
        Paper packet - Tilli
        Coins in abundance - Special Effect
APPENDIX III

Music and Sound Effects

Act I: Piper's theme - originally composed - recorded live on flute.

Sequence of trills becoming Piper's theme - recorded live on flute.

Enchanting tune - recorded from Music in Shakespeare's England/The Krainis Consort.

Rats escaping town - live sound - scratching on head of microphone.

Bells ringing - recorded from sound effects record.

Act II: Dance tune - originally composed - recorded live on flute and guitar.

Anna's dance tune - originally composed - recorded live on flute and guitar.

Back creaking - recorded live - done vocally.

Piper's theme - recorded live on flute.

Mountain opening and closing - live sound - lead pipe on rigid board.

Act III: Snatch of tune - descending scale - recorded live on flute.

Snatch of tune - "Green sleeves" - recorded live on flute.

Snatch of tune - "Cindy" - recorded live on flute.

Piper's theme - recorded live on flute.

Enchanting tune - recorded from record noted above.

Laughter of Baron - recorded live.

Bells ringing - recorded from sound effects record.
APPENDIX IV

Touring Check List

The Pied Piper of Hamelin

Scenery:
3-fold Bakery Shop
3-fold Meat Shop
3-fold Shoe Shop
3-fold Hamelin Inn
2-fold masking - green
2-fold masking - red
1 piece masking - Hamelin Inn
2 pieces wall
2 3' x 6' platforms
1 3' x 8' platform
statue
small bench
collapsible bench: parallel, seat, front
bay window
roof tobbay window
roof to Shoe Shop
drop
3 narrow 10' pipes
4 tall jacks
3 short jacks
2 stiffeners
6 stage weights
1 escape stair
1 window box
2 window drop
Box: 2 door handles
2 signs
2 lanterns
2 window boxes
2 flower pots

Lighting:
2 crates instruments:
7 Fresnels
18 lekos
1 crate cable & other:
cable
three-way connectors
adapters to board
240 volt power feed
240 volt extension
2 strip lights
2 50-lb. tower bases
2 standard tower bases
2 15' 1-1/2" pipes
2 10' 1-1/4" pipes
gelatine carrier
gelatine frame holder carrier
gelatine shears
Box: 2 music stand lights
2 R-40 floods
zip cord
quick connectors
three-way plugs

Sound:
2 speakers,
(inside):
amplifier
speaker extension cord
three-way plugs
short patch cord
repair equipment
tape recorder & microphone

Set-up & Misc.
tool box
tall ladder
short ladder
extension cords
R-40 flood
pigtail tester

Costumes:
rack of costumes
Box - hats
Bag - underskirts
ironing board
iron
repair kit
Appendix IV continued.

<table>
<thead>
<tr>
<th>Set-up &amp; Misc.</th>
<th>Props:</th>
<th>Make-Up:</th>
</tr>
</thead>
<tbody>
<tr>
<td>volt meter</td>
<td>1 box - PROPS</td>
<td>2 boxes make-up</td>
</tr>
<tr>
<td>first-aid kit</td>
<td>1 box - RATS</td>
<td></td>
</tr>
<tr>
<td>spare lamps</td>
<td>1 crutch</td>
<td>1 box lights</td>
</tr>
<tr>
<td>cue sheets</td>
<td></td>
<td>1 box mirrors</td>
</tr>
<tr>
<td>jumper suits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pair gloves</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix V

INFORMATION REQUEST - Major Productions

To be filled out by sponsor with the assistance of a person completely familiar with the theater to be used and to be returned NO LATER THAN ____________________________

1. Name of sponsoring organization ____________________________
   Name of theater to be used ____________________________
   Location of the building (streets) ____________________________
   City ____________________________

2. Easiest entrance for unloading truck into backstage __________

3. Person familiar with stage, having keys, who will meet truck: Name ____________________________ Position __________

4. Will any unloading assistance be available? __________

5. Will two equipped dressing rooms be available? __________

6. What color is the main (act) curtain? __________

7. What color are the stage draperies? __________

8. Will the 3-wire 240 volt electrical service be a range outlet, a "company box", or a tap into the switchboard? __________

9. Is there a frontal lighting position in the auditorium for mounting spotlights? __________

10. How many borderlights hang over the stage? __________
    What colors are there? __________

11. Is there a pipe batten, hung just behind the first teaser or grand drape, suitable for hanging spotlights? (Usually it is just above the first borderlight) __________

12. How many empty pipe battens are available for scenery or lighting? __________
Appendix V continued.

13. Is there a full fly loft so that scenery can be flown?

14. Is it normally permissible to drive stage screws into the stage floor?

15. Is there an orchestra pit?

16. On the simplified drawings below, please fill in the dimensions of your stage. Also please indicate, roughly, the positions of each of the following: A. the stage switchboard. B. where the range outlet (or company box) is, or will be installed.

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*Note: If these teasers are adjustable, indicate maximum height.
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