DRINK THE CELEBRATED VIRGINIA SPRING WATER FOR INDIGESTION

1/2 GAL. DEMIJOHN $2.25
40 GAL. BARREL $6.00
DEMIJOHN REFILLED FOR $1.00

WRITE FOR PAMPHLET CONTAINING TESTIMONIALS

RAWLEY SPRINGS RESORT SPA
RAWLEY SPRINGS, VIRGINIA

A THESIS BY ANN MINNIEAR
Ann H. Minniear
Department of Architecture
College of Architecture & Planning
Ball State University
Muncie, Indiana
CRITICS

PROFESSOR CHARLES SADDENFIELD

LES SMITH

FOR INCENTIVE, COOPERATION AND DECENT

MR. & MRS. DAVID A. MINNIEAR

ROBERT S. CONTE - HISTORIAN

GREENBRIAR HOTEL, WHITE SULPHUR SPRINGS

RICHARD MEIER

JACK WELLS

SONNY PALMER

FOR Cognizant Interlocution and
For Imparting Credence

AMY

CATHY

STEVE

JOHN

PETER

ACKNOWLEDGMENT
RAWLEY SPRINGS RESORT SPA

TABLE OF CONTENTS
- PROJECT ABSTRACT
- PURPOSE AND INTENT
- USE CONCEPT SUMMARY
- SITE SELECTION CONSIDERATIONS
- RESEARCH
- THESIS

SPACE REQUIREMENTS
- RECEPTION ORIENTATION
- GUEST UNITS
- BODY TREATMENT - SPA
- THE SPRINGS
- SUPPORT FACILITIES
- SPACE SUMMARY
- SKETCHBOOK/NOTES
PROJECT ABSTRACT

Rawley Springs Resort Spa is designed for those individuals seeking revitalization of both body and mind. Set in the Shenandoah Valley of Virginia, this resort is a modern image of the once thriving spas that numbered over 100 within a 170 mile radius.

A week-long program of diet, exercise, relaxation, beauty treatments and discussions are designed to combat stress and for most health conscious individuals—excess weight as well.

Design concepts are based on historical models initially. Estates/plantations often consist of a main house, a pavilion and out buildings—Rawley Springs follows that image with a main reception/orientation building, a spa—body treatment area, and guest "units" respectively.

PURPOSE AND INTENT

This facility is intended to provide an alternative vacation—a retreat. The "spa experience" is devoted to the individual's psychological needs, as well as physical needs.

Somewhat hedonistic in nature, Rawley Springs will allow an individual to rely on an inward experience taking place instead of relying on outside entertainment—i.e. spectator sports, tourist activities etc. "Hedonist—meaning "into one's self" is the key to the spa experience."
DRINK
THE CELEBRATED
VIRGINIA SPRING WATER
FOR INDIGESTION
.5 GALLON DENIJOIN $2.25
40 GALLON BARREL $6.00
DENIJOIN REFILLED FOR $1.00

WRITE FOR PAMPHLET CONTAINING TESTIMONIALS

RAWLEY SPRINGS RESORT SPA
RAWLEY SPRINGS, VIRGINIA
USE CONCEPT SUMMARY

THESE ARE FEWER GUESTS THAN NORMAL RESORT ZONING THUS ALLOWING THE CONCEPT OF "RETREAT TO REALLY BEGIN TO TAKE EFFECT. IT IS NOT NECESSARY TO ENVISION A TOTALLY UNREALISTIC DETACHMENT FROM REALITY BUT THE ENVIRONMENT WILL BE CONducive TO ALLEVIATING STRESS AND PUTTING ORDINARitous ACTIVITIES (IE MEETINGS, SCHEDULES, PHONES, BUSINESS, LIFE STYLE ETC) IN THEIR PLACES. THE GUEST WILL NOT BE SHIELDED FROM JOURNALISM AND PHONE RINGS BUT THESE THINGS WILL BECOME SECONDARY IN THIS ENVIRONMENT WHERE PSYCHOLOGICAL NEEDS WILL BE GIVEN THE ATTENTION THEY DESERVE THEREBY GIVING SATISFACTION TO LONG IGNORED PSYCHOLOGICAL NEEDS.

SITE SELECTION CONSIDERATIONS

HISTORICAL/SPIRITUAL RESEARCH OF BATHS AND SPAS LED ME TO THE MOUNTAINS OF THE VIRGINIAS. THE SITE HAD TO HAVE THE INTRINSIC QUALITIES OF RETREAT. THE PERSONAL PHYSICAL EXPERIENCE MUST BE EQUALLY THE OPPORTUNITY TO CREATE A LIVING NATURAL ENVIRONMENT. BECAUSE I BELIEVE THAT THE GREATER PORTION OF THE BENEFIT OF A WEEK AT A RESORT SUCH AS THIS ARE PROVIDED BY THE PERSON THEMSELVES THE SITE MUST THEN LEAD ITSELF TO ENCOURAGING THAT. IT MUST BE CHOSEN IN TERMS OF HUMAN EXPERIENCE.

IN A RADIUS OF 170 MILES THERE WERE OVER 100 SPAS. I BEGAN A CAREFUL DOCUMENTATION OF SITE POTENTIAL AND CHOSE THE AREA RISING ABOVE CUM RUN WHERE THE ORIGNAL SPA OF RAWLEY SPRINGS AT ONE TIME HAD FLOURISHED. IT SEEMED THE PERFECT MIX OF UNTouched SECURED NATURAL SETTING AND HISTORIC CONTEXT. APPROPRIATE FOR THE RECREATION OF RAWLEY SPRINGS FOR THE 20th CENTURY ADULT.
Historically, the "springs" operated on a "cure-all" basis. While satisfying a social need of the period, part of the success of the spa resorts in the past and today is the nature of the experience—a sense of ritual and ceremony are essential, the key to the spa experience is transition. The guest must be removed from the ordinary to the extra-ordinary. Gently the transitions are established and experienced from the man-made to the natural.

No one has ever really proved or disproved the ability of any mineral spring to act upon the body in a positive way—the thing that is clear however is the "mind-set" that accompanies anyone who seeks the waters—thus encountering the ritual and ceremony.

Today the emphasis is not on the water itself as a "cure-all" but rather it relies on self to obtain the curing process. A routine of diet and exercise and relaxation for a period of one week leave a very strong impression. There is no magic—just an undeniable combination of elements that work.

**Thesis:**

A proposition—that is maintained by argument—a dissertation advancing an original point of view as a result of research.

**Thesis Question:**

Can the environment of the once prosperous and "health-giving" Rawley Springs Resort be re-created for modern times?

Essentially, the elements of the original spa were guest quarters (anything from a suit of rooms to a cottage), dining rooms and salons for socializing, the baths and gardens for promenades.

The manifestation in modern times finds the resort guest list accommodating 36 of the same sex—each to receive the finest in personal attention. A staff a-tune to the needs of the guests will see to their every desire. The guests form a community—indeed independent and free of the forced interaction that is unavoidable at popular resorts. The promenade disappears in its formal sense and is replaced by the essence...
Today we live closer together and our families and friends are indeed accessible.

As the spa once provided that "holy" so many years ago, we now have an opportunity to be with ourselves - and we find that just as the climate we are given and the relaxation in this century, the environment itself can truly provide that "holy".
SPACE REQUIREMENTS
RECEPTION/ORIENTATION

This is the first physical structure that the guest will encounter after entering the site. It will provide entry into the built environment and also the formal access to the environment in which he/she will spend the next six days.

In this first space a proportional element of orientation will be introduced from which similar cognitive bases will be established in other structures and the overall organization of the series of transitions.

In this structure the guest is greeted and shown the living area, the dining area and the terrace. Because the spaces are largely glass site orientation can take place in just about any location. Operable transparent glass provides light and natural ventilation. Dehumidification and heating will be provided.

The living space must accommodate 30 guests as will the dining room.

The floors of the entry space, circulation, and terrace are mosaic tile. The living room and dining area are combinations of colored tile patterns and area rugs. The living room will contain groupings of furniture for lounging, games and conversation. The dining area contains formal seating arrangements and built in buffet/service areas. The ceilings in both living and dining areas will have light panels - similar to those used in many E.L.W. homes. The colors used tend to be saturated but muted. The materials and furnishings should evoke a simple sense of richness and quiet elegance.

In this structure office space and rest room facilities will also be provided.

SPACE SUMMARY

<table>
<thead>
<tr>
<th>Space</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Area</td>
<td>1,000 SF</td>
</tr>
<tr>
<td>Dining Area</td>
<td>1,000 SF</td>
</tr>
<tr>
<td>Entry</td>
<td>100 SF</td>
</tr>
<tr>
<td>Circulation</td>
<td>225 SF</td>
</tr>
<tr>
<td>Terrace</td>
<td>225 SF</td>
</tr>
<tr>
<td>Office/R.R.</td>
<td>225 SF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,775 SF</strong></td>
</tr>
</tbody>
</table>
01 GUEST UNIT

Because this is the most private and personal element of the resort experience, the guest unit received the most detailed attention. The entry is exactly proportional to the first entry element that is encountered in the reception/orientation building. It provides the pivot point for all the major spaces in the unit. The rooms are spacious but will be used by one person - whose needs they have been tailored.

The simplification of spaces breaks down to a sleeping space, a bathing space, and a dressing space. The windows provide varied views to intrigue your interest about your environment. One is low and narrow giving a view of the tree trunks and ground - until you lie down on the bed. Another is too high to directly see out so your view is turned upward. Another is a door of glass giving a full view. And yet another is frosted to provide shadows and silhouettes. All are placed to capture and change the light in the room to add silent drama to the spaces.

The materials are cool and like the reception building the floor surfaces are patterned tile and area rugs. Accent colors are found in the furnishings, fabrics and in the openings between spaces.

The size of the space is based on a practical functional requirement for each area. Your needs have been met and edited simultaneously.

The terrace is the last edge of the built environment - accessible from both the sleeping and bathing area.

**Space Summary**

<table>
<thead>
<tr>
<th>Entry</th>
<th>Bath</th>
<th>Sleeping</th>
<th>Dressing</th>
<th>Terrace</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1600 SF</td>
</tr>
</tbody>
</table>


BODY TREATMENT DON'T

The massage areas will be tile floors and painted walls. Again transitions between spaces is very important and a minimum of swinging doors are used. When possible screening occurs by placement of objects or translucent sliding panels are used. A feeling of openness prevails to enhance the personal feeling of openness that can occur in such a relaxed environment. Also located in this grouping is a weight room and a preparation room for the herbal sheets.

All rooms have windows where the guests will be – except shower/kr. steam and scotch shower. The windows could be opened and the air drift in while you lay in the warm close of fango mud or dry brick as the skilled hands of a massage work their magic.

The third group area C contains the exercise room, salon, paraffin wax treatment and sauna. Polar pool. There are offices here for the charting and counseling sessions. The exercise room is faced with sliding glass on one side and carpeted.
BODY TREATMENT - SPA

The use concept for the body treatment areas was that each treatment routine was in effect a ceremony. And because it was a ceremony, a sense of celebration must permeate the environment. The breakdown of similar and related routines caused a logical grouping of these areas. This breakdown also lent to an overall reduction in building mass and their separation. Created the processional that linked them to the forest - a termination of built environment dis-integrating into the natural environment.

Water - (historically also) is used as a focal point in each part. The pool area - the pre-hallance of the mineral whirlpool at group B and the polar pool at group C - in the terrace before the forest.

At area A - the pool is ornamental as well as functional and is five feet deep. Nearby is an area for refreshment with a service kitchen. Restrooms and showers are provided here as they are in each area and take on the same description in each case. Also located in this area are two 6' x 6' hot tubs at the edge of the forest. The terrace around the pool will be used by the guests during the day and in the evening. An advantage of the climate is no mosquitoes so to while away the evening in such a setting cool breezes - perhaps even a little chill - contemplating the stars and refining the art of conversation will be a real delight.

In the second grouping - area B is the mineral whirlpool will capture your attention first. Two walls of glass slide away to open the space to the surrounding terrace. Beneath the enclosure and on the terrace relaxation and herbal wraps/facials will be taking place. The bubbling of the water sends a causing affect through the air.

To one side of this space is the rest/shower area and to either side treatment areas. Here are the mud baths, the steam room, the massage rooms and the hot soaking area.

The majority of the spaces are completely tiled for easy clean up and maintenance.
I. BODY TREATMENT SPACE SUMMARY

AREA A

POOL
KITCHEN
STORAGE/MECH
STAFF LOUNGE
DINING AREA
HOT TUBS

SUBTOTAL 1275 SF

AREA B

MINERAL BATH
RELAXATION AREA
RR/SHOWERS
MUD BATHS
MASSAGE ROOMS
SCOTCH SHOWER
MUD STORAGE
STEAM ROOM
STORAGE/MECH
WEIGHT ROOM
HERBAL PREP ROOM

SUB TOTAL 2489 SF

AREA C

GALLERY
WAX TREATMENT
KITCHEN
OFFICES
STORAGE
EXERCISE
RR/SHOWER
SAUNA
POLAR POOL

SUBTOTAL 1600 SF

ROUND THE POOL
DURING THE
AN ADVANTAGE
QUITOS GO TO
A SUCH A SETTING,
NEN A LITTLE
STARS AND RE-
ATION WILL BE

- AREA B - THE
CAPTURE YOUR
OF GLASS GLIDE
TO THE SURROUND-
ENCELOUSE AND
AND HERBAL
LING PLACE, THE
ENDS A CAUMING

IS THE RESTRO-
D SITE TREAT-
D BATHS TO THE
AND THE ECT

ARE COMPLI-
AND MAINTAINENCE
SUPPORT FACILITIES

Four apartments are furnished for the 3 managerial staff and the chef. A garden for growing vegetables and flowers is near by. A kitchen provides all the meals for 36 guests and 42 staff daily. A staff dining room is across from the kitchen.

Town house apartments are provided for the staff to be shared by two. Sleeping space, bathing/pressing and living/terrace are the elements.

SPACE SUMMARY

<table>
<thead>
<tr>
<th>Apartments (4)</th>
<th>2880</th>
</tr>
</thead>
<tbody>
<tr>
<td>Townhouses (22)</td>
<td>15,400</td>
</tr>
<tr>
<td>Kitchen</td>
<td>1,000</td>
</tr>
<tr>
<td>Dining</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20,280 SF.</strong></td>
</tr>
</tbody>
</table>
## Complete Space Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Space (sq ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception/Orientation</td>
<td>2,775</td>
</tr>
<tr>
<td>Guest Units 36 @ 1500</td>
<td>54,000</td>
</tr>
<tr>
<td>Body Treatment</td>
<td></td>
</tr>
<tr>
<td>Area A</td>
<td>1,275</td>
</tr>
<tr>
<td>Area B</td>
<td>2,589</td>
</tr>
<tr>
<td>Area C</td>
<td>1,600</td>
</tr>
<tr>
<td>Support Facilities</td>
<td>20,280</td>
</tr>
<tr>
<td><strong>Total Built Space</strong></td>
<td><strong>82,519 sf.</strong></td>
</tr>
</tbody>
</table>
The Springs

In the area formed by the Spa areas there occurs a clearing - the spring source crowned by a dome. Here is the essence of the original Spa - the mecca of thousands of Spa goers for centuries.

The warm water is a compound chalybeate; happily adapted, by the association of its medicinal ingredients, to act as an efficient tonic and alterative; and its successful administration for many years proves that it possesses curative properties beyond those of an ordinary feruginous tonic.

The following is Professor Malet's chemical examination of this water:—

<table>
<thead>
<tr>
<th>Substance</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protoxide of iron</td>
<td>1.3214 gms per imp. gal.</td>
</tr>
<tr>
<td>Protoxide of manganese</td>
<td>.0182</td>
</tr>
<tr>
<td>Alumina</td>
<td>.0814</td>
</tr>
<tr>
<td>Magnesia</td>
<td>.3674</td>
</tr>
<tr>
<td>Lime</td>
<td>.3330</td>
</tr>
<tr>
<td>Lithia (detected by spectroscopy)</td>
<td>trace</td>
</tr>
<tr>
<td>Soda</td>
<td>.5065</td>
</tr>
<tr>
<td>Manganese</td>
<td>.3674</td>
</tr>
<tr>
<td>Potash</td>
<td>.0721</td>
</tr>
<tr>
<td>Ammonia</td>
<td>trace</td>
</tr>
<tr>
<td>Sulphuric Acid</td>
<td>.5208</td>
</tr>
<tr>
<td>Chlorine</td>
<td>.0515</td>
</tr>
<tr>
<td>Silicic Acid</td>
<td>.8163</td>
</tr>
<tr>
<td>Carbonic Acid (combined)</td>
<td>1.5024</td>
</tr>
<tr>
<td>Organic Matter (including huminoid matter)</td>
<td>.3831</td>
</tr>
</tbody>
</table>

The gases dissolved are as follows:—

<table>
<thead>
<tr>
<th>Substances</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonic Acid</td>
<td>7.42 cubic in. per imp. gal.</td>
</tr>
<tr>
<td>Oxygen</td>
<td>2.07</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>4.18</td>
</tr>
</tbody>
</table>

The protoxide of iron in the water of the two other springs are determined as follows:—

Upper Spring

1.5200 gms per imp. gal.

This analysis, showing that the water not only contains protoxide of iron, with carbonic acid in excess, but also that it contains silicic acid, alumina, manganese, magnesia, soda, lime, ammonia, sulphuric acid, chlorine, and potash, evidences that it is not only tonic but also alterative in its powers.
COMPARING THE NATURAL CONSTITUENTS
OF HEALTHY HUMAN BLOOD WITH THE
LEADING INGREDIENTS CONTAINED IN
THIS WATER, IT IS NOT DIFFICULT TO ACCOUNT
FOR ITS ADAPTEDNESS AS ALTERATIVE
AND RESTORER OF THAT FLUID, AND FOR
ITS EFFICIENCY AS A TONIC TO THE RELAXED
AND ENERVATED SYSTEM GENERALLY.

THE ABOVE INFORMATION WAS TAKEN
DIRECTLY FROM: MINERAL SPRINGS OF
NORTH AMERICA, HOW TO REACH THEM
AND HOW TO USE THEM. BY J.J. MOORMAN, M.D
C. 1873. LIPPINCOTT.
What I do want ....

a. a sense of place
b. a sense of personality
c. a sense of individualism
d. gentleness
e. community
f. a sense of scale
   with the human
   with the landscape
g. a sense of intrigue
h. a sense of arrival
i. intimacy
j. comfort
k. challenge (intrigue)
l. privacy

People arrive sporadically, allowing for individual attention and introduction. Like going to someone's house for the first time as a guest, you are greeted and welcomed into the home. The facilities available are yours to find a relaxed situation and some alternatives are posed to you... Can I get you something? Let me take your things? I'll show you the way to your room, would you like to freshen up and unpack? I'll show you where everything is. Take your time - we'll have dinner around 8:00 so make yourself at home.
the art of molding space

- spaces to accommodate people in movement (work or leisure)
- the right amount of room for certain physical activities.
- awareness of space as a factor - provide ourselves with buildings which not only work but feel right.

- relationships inside to outside

  - if these relationships touch his imagination and sense of wonder in a way that brings momentary poignant to the unconscious practical query, "How much room have I got?" He has launched into an aesthetic experience.

- reality suspension.

1715. Texture has the power to modify the appearance of shape by adding assisting or defeating cognition.

Textures of the simplest kind can therefore be used to modulate the qualities of shapes.
IMPLICIT VS EXPLICIT
IMPELLICAL KNOWLEDGE

relative position to reality

Guest House

Is it a house, Is it a place, Is it a room, Is it a dorm, What do they share, What do they have in common, What are the differences?

How does the dictionary manifest itself physically, perceptually, recognition and transcendence, space must generate it.

"Abstraction as intuitive"
**Reasons**

**Purpose & Intent**

**Why A Duck?**

This facility is intended to provide an alternative to a vacation—a retreat. This facility will provide a vital escape from the pressures of a strenuous life style. This experience, the 'Spa Experience,' is devoted to the individual's psychological needs as well as physical needs.

Somewhat hedonistic in nature, Rawley Springs will allow an individual to rely on an inward experience, taking place instead of relying on outside stimulation—e.g., entertainment, spectator sports, tourist activities—meaning "into one's self" is the key to the Spa Experience.

**Use Concept**

There are power guests than normal resort goers, thus allowing the sense of "retreat" to really begin to take effect. It is not necessary to envision a totally unrealistic detachment from reality, but the environment will be conducive to alleviating stress and putting ordinary activities (i.e., meetings, schedules, phones, business, life style, etc.) in their place. The guest will not be shielded from journalism and phone rings but these things become secondary in this environment where individual psychological needs will get the attention they deserve. Therefore giving satisfaction to long ignored psychological needs.

Physiological needs will be met in several ways—two being primarily diet & exercises. Each client will be interviewed and counseled for specific needs and goals. An appropriate plan/program is then established for deriving maximum benefits. Activity groups will be organized for exercise groups—other activities/services will be optional and scheduled by guest.
SITE CONCEPT

• RETREAT

SITING THE SOUL

PROJECT CONCEPT - PROVIDE AN ALTERNATIVE VACATION/RETREAT
BUILDING CONCEPT - ESTABLISHING PERSONAL SCALE WITHIN A FRAMEWORK OF INFINITY SPACE
• SCALE: SCALE: SCALE
• ATMOSPHERE

SCALE THROUGH SCALE
THROUGH SEPARATION & DISTANCE

PROJECT CONCEPT -- ALTERNATIVE VACATION/RETREAT

SITE CONCEPT -- SECLUSION

BUILDING CONCEPT -- ESTABLISHING PERSONAL SCALE/SPACE WITHIN A FRAMEWORK OF POTENTIAL INFINITE SPACE

CLIENT/GUEST USE CONCEPT

• ARRIVAL
• DAILY ROUTINE
• PERSONAL TIME

SITE BOUNDARIES

STAFF USE

• LIVING
• EATING
• WORKING

Analyze connections
Formal vs. informal
Positive interaction
Central experience
Growth of the community

Give responsibility of self-expression
Site Concept (parti)
Building Concept (parti)
columns for natural division
MAJOR CONSIDERATIONS

PROJECT INTRO/DRAWING PROGRESS

GUIDES
SEQUENCE OF MOVEMENT
GRID FOR ANALYSIS

MAJOR CONSIDERATIONS

GRID FOR SITE ANALYSIS PURPOSES
INDICATING POTENTIAL TO
CREATE ADJUST THE DENSITY
OF THE VEGETATION —
TO GAIN VIEWS ACROSS AND
OUT OF THE SITE AS WELL AS
THROUGH THE SITE.

PHYSICAL STRUCTURES WERE CREATED
AS A RESPONSE TO A PHYSICAL
SITE PROCESS: ENTRY SEQUENCE

SITE SEQUENCE...
PROBLEM STATEMENT:

1. Grid for Site Analysis Presentation

1st Drawing: Indicates potential for adjusting the density of the vegetation to gain visual access (Physical access) across & out of the site as well as through it.

2nd Drawing: This allows the manipulation of the vegetation to create rooms in the forest.

3rd Drawing: Site Sequence.

A Preparation for being one with the site.

Major axis terminates with physical structure and the historical element of water.

Dual axis terminates central axis takes over.

* You become center of the space.
Italian Hilltowns

Some discuss the heights of their greatest architectural beauty. No pretense - whether it is a result of environment and available materials.

"...some sense of the changing of views, the variety of spaces, and the play of light and dark that one experiences in moving along the passages - one hesitates to call them streets..."

"...in old remains the spiritual center for the new..."

p. 85 - copy
**BATHS - MAGAZINES**


**FIT (F)**, August 1982, "A COME ALIVE SPA, THE OAKS AT OJAI CAN TREAT YOU RIGHT."

**FIT (F)**, Sept. 1982, "STRENGTH TRAINING FOR BEAUTY," "LYING IN THE Ooze, Mud Bath...

**AMERICAN HEALTH**, July/Aug. '82, "Weighlifting lightens Life."

**TIME** (F), Aug 30, 1982


**ROCKS AND MAGAZINE EXCERPTS**


**BURKE, WILLIAM**, THE MINERAL SPRINGS OF VIRGINIA, MORRIS AND BROTHER, 1851.


**MOORMAN, J.J.**, MINERAL SPRINGS OF NORTH AMERICA, J.B. LIPPINCOTT, 1873.


**BATH DEPARTMENT BROCHURE**, THE GREENBRIAR, C. 1930

**MEDICAL RECORD**, Jan. 1931 - A FAMOUS AMERICAN SPA.

**THE WATERS OF WHITE SULPHUR SPRINGS**, C. 1928

**BIBLIOGRAPHY/RESOURCES**