Buxton
A Summer Resort
for
Phthisical Patients
A Thesis by
Edwin John Sykes M.B., C.M.
1884
A disease so mischievous and so fatal as that of Pulmonary Phthisis rarely fails to awaken fears of the most appalling kind, in any individual once known to be afflicted with this scourge, which is popularly considered as a doom to a brief span of existence in fact to be subject to phthisis among the laity is only another
Term for being death threatened. How curiously the patient seems the face of the physician endeavouring to discover how distant the fatal event may be! How almost breathlessly the poor sufferer awaits the result of the visit! Hoping on! still lingering on in hope! Hoping almost against hope! But what a cheerful smile irradiates that poor wan face when he learns that the gravity of the danger is past! That smile is a reward in itself, and at once a ray of cheerful gratification penetrates the sympathetic heart of his medical attendant: if we can, by any means, no matter how humble, contribute to the comfort of the afflicted or add to the alleviation of pain, I may be only in a small degree, but how wise...
small the effort, there will be an inward feeling of satisfaction that
the labour has not been in vain.

It is with such a hope that the subject of this paper has been chosen
and at the same time a sincere wish that it may promote a
dispassionate enquiry into the subject
of the advisability of utilising the
bracing air of Buxton, for the
benefit of Phthisical patients. It is
doubtful whether this subject has
ever been ventilated before, and it
may perhaps be considered a
bold undertaking to attempt to
justify this claim for Buxton
in addition to those other claims
for which it is justly renowned, earned
for itself through several centuries as
many sufferers from gout & rheumatism
well thankfully testify
A brief description of the
locality is necessary for several
reasons, but chiefly on account of
the unusual elevation above the
sea level.

Barlow is situated among
the high hills of Derbyshire, commonly
known as the district comprising
the High Peak, which is the
termination of that long range of
hills commencing with the Scottish
Cheviots and forming the backbone
of northern England. Upon a portion
of the Peak stands the town of Barlow
surrounded for thirty or forty miles
by hills of various dimensions, covered
in many instances by various species
of Coniferous trees on the higher
portions and by less hardy trees on
the lower elevations. On the north and west sides are extensive tracts of moor land heath. The lofty elevations round Busetow, some of which rise to a height of 2000 feet above the sea level, sufficiently shelter and break the force of the wind especially from the north and north-east; an additional protection is found in the numerous plantations which have formed from time to time, and much tree planting is constantly being carried on which will no doubt produce a desirable result in the future.

Although the average elevation of Busetow is upwards of 1000 feet, the town itself appears to be situated in an amphitheatre-like hollow, approached from the south east and southwest.
by valleys beautifully and plentifully wooded, the sides of these valleys are formed of lofty rugged masses of limestone rocks, giving the idea of a Switzerland in miniature. The well wooded and bold scenery around is the source of attraction and delight to thousands who annually make their pilgrimage to Buxton.

The town itself is divided into the upper and lower Buxton, the upper portion being chiefly built on the limestone formation while the lower portion is mainly on the millstone grit. The hotels and other residences are well and substantially built and constructed with every care and consideration for the comfort, cleanliness and efficient ventilation. Food of all kinds
is plentiful and of unapproachable quality, especially with regard to milk and farm produce generally, which can be obtained in almost unlimited quantities.

One very important point in connection with Rustow and especially valuable to invalids and others visiting is the new recreation grounds and gardens in which stand a large paddock constructed chiefly of glass and iron, in this spacious hall during showers or when the weather is otherwise unfit for outdoor exercise. The invalids can take abundant, under cover at the same time securing all the benefit of the fresh air, in the winter months the scene made is artificially heated and constitutes a great boon to those...
The purity and stimulating properties of the atmosphere have become a well-recognized feature in Buxton. The air is dry and bracing to a great degree. The soil is very porous and assists considerably in drying the atmosphere, such is the absorbent nature that after the heaviest showers the roads become rapidly dry in the course of an hour or two which enables the visitors to promenade with the greatest comfort.

Great attention has been directed to the observation of the meteorological phenomena of the locality during the last eighteen years which will confirm many of the statements here made; particularly with regard to the barometric pressure, humidity —
In a damp atmosphere the sensation of cold is more acutely felt than the actual temperature warrants, so also when in addition to this there is more than ordinary movement in the air; the abstraction of heat from the skin is very much increased by the rapid evaporation of the moisture. This is one of the reasons why chills and other disagreeable catarrhal symptoms are produced, especially when there are strong winds and a very cool air. Dampness of soil is favourable to the development of Phthisis and the exhalations from damp soils materially increase the death rate where this foe to health exists irrespective of any hereditary tendency. Humidity in the atmosphere being such an important factor on an
indicator of the probable or possible
benefits to be derived from different
localities, should be one of the first
and foremost points to be attended
when it is considered necessary to
tend a patient in search of health.

Warm moist air is sometimes very
agreeable and soothing to the bronchial
apparatus during inflammatory or
in congested states; but with a lower
temperature with much moisture
the influence on the respiratory tract
if not positively injurious, to say the
least it is not advisable. Many of
the Winter Coughs, Catarrhs, or more
gaverse diseases of the lungs are developed
during such kinds of weather, from the
fact that much of the vital heat is
abstracted from the lungs to and passed
with the watery vapour, to be seen...
almost on any foggy day. Fogs in Paxton are never dense enough to obscure the opposite side of the road and are really little more than thin mists.

The rainfall at Paxton is considerably above the general average of the British Isles, but the rapidity with which the surface water is carried off renders the excess of rainfall so much the more salutary than it would be the case otherwise. The atmosphere becomes purified and all particles likely to present are carried away with the water; the steep inclines which abound everywhere, added to the porous soil enable any dampness almost impossible although in other localities pools of stagnant water may remain visible for weeks.
Cold and dryness do much towards the prevention of any rapid proliferation of germs or bacteria, which are well known now to be so pernicious to the lungs as well as increasing the susceptibility to other maladies. In breathing cold foggy air there is great loss of heat from the bronchial tract caused by the rapid conduction of the heat into the moist atmosphere and this is a constant source of many catarrhal affections. At Buxton the fog or more correctly speaking the mists are of such a slight nature that from this source very little distress is experienced, and the extra work thrown on the lungs and kidneys in the excretion of the waste products is at its minimum in Buxton, while in other localities there is a too sudden cooling of the skin thereby
closing the natural orifices - the pores,
and preventing the necessary amount
of moisture in passing through the skin.

From the absence of any manufacturing
industries where much smoke is produced
we have necessarily a greater freedom
from deleterious atoms floating about in
the air, this is another fact favouring
the residence of Pulmonary Patients in
Buxton.

The death rate for the year 1853 in
Buxton was 9.9, this is very low and
speaks sufficiently for itself, when this
is considered as the death rate from all
causes we may naturally infer that
the death rate from Pulmonary must be
proportionately small, and a favourable
comparision may be drawn between Buxton
and any foreign health resort for
this particular disease.
A glance at the Meteorological report for the year 1883 will perhaps assist more conclusively to confirm the statements made previously.

The mean height of the barometrical readings for the last fourteen years is 29.869 inches when corrected for temperature to 32° F. and reduced to the sea level.

The mean temperature of the air in the shade for the same number of years is 45°.

The mean of observations of the solar radiator is 77° and the mean of the readings of the terrestrial radiator is 39°.

The mean temperature of the dew-point for the same period is 41°. The mean degree of humidity is .846, assuming as a standard point of complete saturation 1.000.

For the last eighteen years the average rain-fall at Beechore is 58.258 ins.
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**Meteorological Observations, Monthly Summaries, & Means for 1867**
**Meteorological Observations for 1869 (Continued)**

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<th>Date</th>
<th>Mean Daily Temperature (°F)</th>
<th>Mean Max. Temperature (°F)</th>
<th>Mean Min. Temperature (°F)</th>
<th>Rainfall (in)</th>
<th>Snowfall (in)</th>
<th>Wind Speed (m/s)</th>
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*Note: The table continues with data for each month.*
The mean daily amount of sunshine for the year 1883 is 3.35 hours. Moreover, there were 282 days on which sunshine was registered.

The daily mean amount of ozone for 1883 is 14.3.

From the above results of observations, it will be seen that there are several very important factors necessary for the production of a healthy climate, namely, a plentiful supply of ozone, sunshine and an atmosphere not too moist; the temperature is apparently low. It has been compared with that of Worthing on the south coast, and found to be only 2° below.

The presence of a dry cool atmosphere is one of the favourable recommendations to the high altitude resorts in Switzerland and elsewhere, and there is no doubt that cold acts as a powerful...
some when used either as bathing or as simply breathing cold air; there is an increase in the appetite and this necessarily leads to a larger consumption of hydrocarbons which are required to sustain the waste caused by increased combustion of tissue, going on with the body and an increased nutritive process is developed. This is probably one of the reasons why agricultural labourers and others working in the open air are so proverbially healthy. Cold is also an invaluable remedy in the controlling and subduing of pyrexias and the night sweats so frequently found in Pthisis.

The diminution of the splanchnical pressures in a great measure accelerates the heart action and consequently the supply of blood to the lungs is greater.
where it becomes more perfectly charged with oxygen ultimately for the greater and more general benefit of the system.

Again the influence of sunlight must act an important part in such diseases as phthisis, anaemia, chlorosis, etc. For where there is only a limited supply of light we see these kinds of cases in greater numbers. For example those working in badly lighted factories, clerks, miners, etc. They are most markedly anaemic or chlorotic looking, when compared with those whose occupations necessarily much out door work, so that with a mean daily amount of sunshine upwards of three hours we have another important claim in favour of Buxton.

On referring to the subject of ozone perhaps a somewhat debatable ground is being ventured on, be this as it may,
with a daily average amounting to 4.3
one point is certain, that there must
be little or no fluorescent matter in the
neighbourhood to require deodorising, and
doubtless on this account it is a proof
though in a negative sense, of the
general purity of the atmosphere, as it is
a well known fact, that ozon is scarcely
ever if at all found in unhealthy localities.
The influence on the blood corpuscles
must be very advantageous when
the ozon is freely deluted and rapidly
absorbed.

It is better to consider all the
items of climatic importance collectively
rather than to depend on one or two
isolated facts.

In the first place we have a
diminished barometrical pressure of upwards
of an inch, an almost entire absence
through winds; a fairly dry atmosphere with almost total freedom from smoke or other adventitious impurities; a large amount of sunshine tempered by exhilarating and refreshing gentle breezes; and an abundance of ozone.

The advantages deducible from the above facts cannot fail to recommend themselves as being, cumulatively important and satisfactory as evidenced by the following summary.

1. From the stimulating effect of the atmosphere there is great improvement in nutrition, a greater capability in assimilation of nitrogenous and carbonaceous foods, so necessary for perfect nutrition so much required in Phthisis; there is increased activity in the pulmonary lymphatics depending on increased circulation and the greater or more frequent expansion of the
Chest walls.

1. The freedom from noxious gases and other possible impurities in the air reduces the amount of ventilation in the lungs.

2. The dryness of the atmosphere and its reduced pressure favour the dry discharge of the esophageal material from the lungs.

3. The ozone and sunshine have the effect of increasing the oxidation of the blood through the lungs.

4. The quantity of blood circulating through the lungs is increased from the more frequent and greater expansion of the chest walls and the moderate temperature.

5. The good water supply and the efficient system of drainage contribute very much to the general healthiness of the locality.

6. There is generally a diminished liability
so attacks of inflammatory nature and coughs.

And a healthy stimulus is given to the brain and nervous system. Almost all cases of Phtisis improve rapidly at Buxton, excepting those cases very far advanced or where there are large cavities in both lungs, or where there is fever or lupugnaceous Phtisis. From April to October is the time best suited for patients afflicted with Pulmonary Phtisis to visit Buxton, as it is during this period that a larger percentage of benefit is derived.

The following statistics obtained from the District Registrar will in a great measure support the statements previously made with regard to the per centage in the death rate from Phtisis alone in the vicinity of Buxton. A certain
deduction may very reasonably be suggested from the fact that some of the cases have necessarily been reported by those who have not been residents or natives of the district. It has been frequently observed that some patients have come to try the effects of a pure bracing air, at the same time losing sight of the fact that they have been in a state too far advanced to hope to receive any relief either here or elsewhere. In directing attention to this point which slightly strengthens the previous assertions, in some cases it has been known to be a last resource, resorting coming after trying every available remedy are led by hope that in boldly or rather rashly adopting a positive extreme, they may reach a sudden acceleration from
The percentage of deaths from Pulmonary Phthisis are as follows:

1872 = 2.3
1873 = 1.6
1874 = 1.9
1875 = 2.4
1876 = 1.7
1877 = 1.6
1878 = 2.3
1879 = 1.8
1880 = 1.8
1881 = 2.0
1882 = 1.8
1883 = 2.7
1884 = 1.8