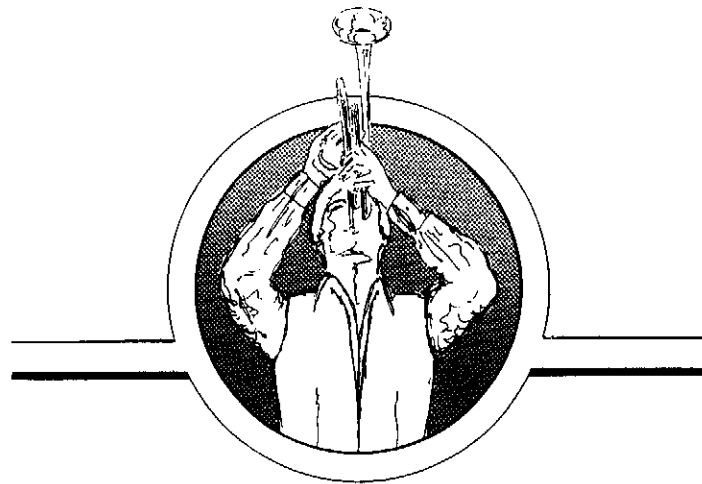

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“Extremely well done, very informative, I would not
hesitate to recommend this book at any time.”

.....**Maynard Ferguson**

To Moses, who endured many painful hours of high, loud trumpet playing and did his best to accompany the author.



ABOUT THE AUTHOR

The author, a trumpet player for several years, has performed in a wide variety of professional settings. His experience includes small-band jazz, commercial, and lead trumpet work.

Mr. Lynch has also been a teacher, consultant engineer, writer and, for many years, a senior research scientist for NASA. His publications have dealt with a variety of fields including neutron physics, heat transfer, applied mathematics, nuclear reactor analysis, statistical inference, and reactor physics.



FOREWORD

Unless you're a "natural", high playing can be a source of continual frustration and a constant search for the right mouthpiece, horn, and in some cases, the right teacher. It takes time, however, to "try out" a mouthpiece or horn and "give it a chance" to see if the range increases. This "cut and try" approach can take so long as to discourage all but the most determined players. It is also prohibitively expensive. Most players lose interest and eventually accept as fact that they will never play high.

Contrary to what is commonly thought, high playing is not only a *musical* problem; it is a problem in *acoustical physics* as well. To understand and solve these problems, a few elementary engineering and physics concepts must be addressed as they apply to professional trumpet performance. This is really what is needed and seems to be conspicuously absent in all currently available trumpet methods that I have encountered.

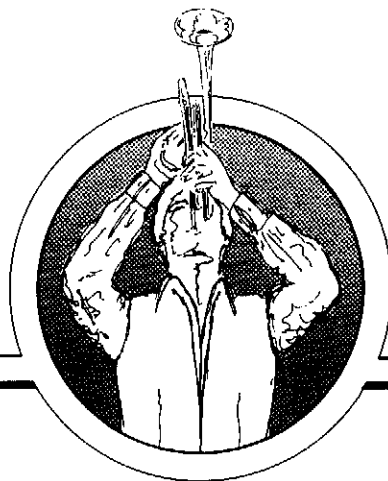
Also, some familiarity with the subtleties of teaching is required as well as the ability to express all of the related ideas in a coherent, written form that clearly conveys these solutions to a student player. My qualifications in each of these areas (engineering physics, trumpet performance, teaching, and writing) have enabled me to formulate an approach to altissimo trumpet sound production that is analytically correct, rationally defensible, and readily understood. As further support of the method, I can offer my own experience and success with it.

My feeling is that this book represents a comprehensive discussion and method for high playing, and that the student who pursues this method *diligently* should have no need for any other material on range extension; his search will have ended.

John H. Lynch

ABSTRACT

High trumpet playing (above high "C") is analyzed, and a method is presented to provide the limited range player with insight into the mechanisms involved along with an efficient procedure that will allow him to develop a double high "C" range with minimum time investment. All pertinent areas of high sound production including embouchure, pressure and air flow, are examined in detail. Equipment, practice, and range maintenance are discussed, and a complete, self-contained exercise program is outlined.



INTRODUCTION

Altissimo trumpet playing, taken here to mean playing above high "C," has been a subject of fascination and concern with all serious trumpet players for at least the past forty years. This is true of both the virtuoso player concerned with executing some of the high Bach repertoire using the "B"-flat trumpet, and the lead trumpet in large dance and stage or jazz bands. Jazz players as well, especially the better ones, are frequently found to have a dependable "G" above high "C," particularly in the last twenty years. The ability to produce a double high "C" with power and control, as done so admirably by Maynard Ferguson, Bill Chase or Cat Anderson (to name but a few) is respected, it seems, universally by both musicians and laymen. It follows that this capability appears to be one worthy of study. Once mastered, it could clearly yield great personal satisfaction and possibly economic reward. This is true even more so today than in "The Forties." A trend toward more demand for high playing in the big jazz band arrangements seems well established. Today's big band music requires a reliable high "G" range of the lead trumpet. On occasion, a high "B"-flat or even a double high "C" is expected on some of the more difficult arrangements (e.g. Maynard Ferguson's *Chameleon*).

This text will address itself to the problem of mastering the altissimo range and, somewhat, to some of the more general aspects of sound production using the trumpet. It is not, however, concerned with elementary problems of intonation, fingering, reading, etc. Thus, it is not a general, overall trumpet method. An attempt has been made here to present an easily understood explanation of the physical requirements necessary for high-pitched sound production and the way in which these requirements interact with those elements of

playing that are under the control of the player. Armed with this knowledge, the player can approach the problem of high playing more efficiently and will be able to minimize the practice time required to attain his goals. A detailed discussion is included on pressure, breathing and attitude, as well as the mechanics of the equipment as they relate to altissimo playing. A method for systematically mastering the high range is presented in step-by-step format. It includes playing exercises, breathing exercises and considerable discussion concerning the affects of attitude and the ways in which psychological disposition can enhance or hinder the player's practice effectiveness.

The time required to master high playing will obviously vary from player to player depending on the effectiveness of his practice, how much he practices (to some extent), his attitude and desires. Above all, it will depend, I believe, on his ability to give up old habits and make the transition to new ones. This will be, *by far*, the most important single factor. Based on my own experience, I would estimate that thirty minutes a day for a few months (three to six should yield a respectable high "G". With continued effort, the double "C" should follow shortly thereafter (another three to six months). This is no guarantee, however, because it will undoubtedly depend on the player.

The recommended way to begin these studies is to first read this text from cover to cover, preferably twice, before attempting any playing. (Reread the previous sentence.) This will aid in acquiring the correct attitude and will supply an overall knowledge of what is required, thus enhancing practice effectiveness and accelerating progress.

Playing high is not necessarily a progressively mastered entity in that, this month, we can play a high "E" and, next month, a high "F" due to some required metabolic process or muscular development. Rather, it can be more favorably compared to riding a bicycle; one minute you can't, and the next minute you find that you can. It is more of a stepwise increase in ability than a slow ever-increasing ramp function; a "knack" if you will. As with riding a bicycle, skill may be acquired suddenly or possibly it will require several attempts to "get the hang of it". The point is, this is a *learned skill* and *not* something like weight lifting which requires slow, progressive physical change.

Some players today have "naturally" mastered high playing, because they have instinctively acquired the skills and requirements outlined in this text. This natural mastery has led to much speculation as to "how to do it". As a result, many rule of thumb

guidelines and recommended approaches can be found in the literature of trumpet methods. These are also frequently circulated by word of mouth or acquired by one-on-one private instruction. Some of these recommended practice techniques and suggestions are effective (depending on the player) and some are, in my opinion, worthless, because they are not accompanied by explanations as to *why* they are being done. Students follow these directives in the blind hope that they will produce some magical result for reasons not clearly understood. This can lead to misapplication of the techniques with no significant progress. The physical requirements of high playing are unrefutable facts derivable from the physics of vibrating bodies. Once these facts (*as they relate to trumpet playing*) are clearly understood, we may pursue high playing in a much more efficient manner. We will also have the insight that will prevent us from belaboring many of the "blind alleys" of arbitrary recommended practice.